

Our Resilient Wellington vision is that:

As Wellington changes,
everyone here will
survive and thrive.

Wellington's resilience challenges originate from three big systems on the move.

Our society is transforming.

Wellington's population is growing. It is getting older, more diverse and less equitable. Some of our homes, instead of being a source of resilience, are cold, wet and unaffordable. New people are arriving - some will struggle to develop skills and find jobs. Some of our citizens are disconnected from society, living on the streets at the mercy of their mental health issues or substance addictions. Communities and the public and private sectors must share information, trust one another, and work together more effectively to develop a better resilience culture.

The earth is moving in Wellington.

A significant seismic event is inevitable. Current efforts are focussed on saving lives but our buildings will be damaged and it will take time before we can use them again. The energy, transport, water and telecommunications infrastructure that serves our communities, our Government and our business sectors are centralised and vulnerable. Central Wellington generates eight percent of national GDP and 48 percent of regional GDP. If the robustness and integration of knowledge, planning and governance in Wellington isn't improved, the consequences could be socially and economically significant.

The sea is rising.

Extreme weather is already affecting our coastline and low-lying parts of the city, damaging seawalls and flooding homes. More intense rain and wind will cause more flooding in our streets, land slips on our hills, damage natural and built assets, and increase maintenance costs. We are yet to understand climate change's physical, financial, cultural and social implications, and how we should adapt. We have many strengths - including a stunning natural environment and insights from Māori culture on integrating human activities with nature - but we must collaborate within Wellington, New Zealand and even globally to find long-term solutions.





Goal 1
p.40

People are connected, empowered and feel part of a community.

Programme 1.1
Everyone thrives p. 42

We will enable all Wellingtonians to have an opportunity to enhance wellbeing for themselves and their communities.

- 1 Improve access to household resilience items
- 2 Prepare for an ageing population
- 3 Reduce homelessness

Programme 1.2
Community resilience p. 48

We will build on existing strengths to develop innovative programmes that connect and empower communities to improve their wellbeing.

- 4 Help communities build resilience
- 5 Support community spaces in taking on wellbeing and post-disaster roles
- 6 Develop sustainable food networks
- 7 Develop disaster risk management plans for heritage areas

Programme 1.3
Economic resilience p. 56

We will support our business community to improve preparedness and strengthen our economic activity.

- 8 Increase economic resilience of central city and outside hubs
- 9 Help improve business continuity planning
- 10 Improve understanding of workforce trends



Goal 2
p.60

Decision making at all levels is integrated and well informed.

Programme 2.1
Governance p. 62

We will ensure that resilience is integrated into our governance.

- 11 Introduce regulatory tools for resilience
- 12 Review Wellington Lifelines Group
- 13 Maintain monitoring and evaluation of resilience goals

Programme 2.2
Information p. 68

We will make information on all aspects of living in Wellington easily accessible.

- 14 Give Wellingtonians information they need to make decisions
- 15 Develop a virtual reality model of the central city built environment

Programme 2.3
Adaptation p. 72

We will raise awareness about the potential effects of climate change and sea level rise to better emphasise the need for decisions to be made.

- 16 Develop a communications and engagement strategy for the Adaptation Plan
- 17 Encourage climate adaptation actions

Programme 2.4
Recovery p. 76

We will develop a framework for successful recovery from any disruption.

- 18 Undertake recovery planning for the Wellington region
- 19 Carry out post-earthquake housing study



Goal 3
p.80

Our homes and natural and built environments are healthy and robust.

Programme 3.1
Homes and telecommunication p. 82

We will support initiatives that contribute to Wellington homes forming the cornerstone of the city's resilience.

- 20 Help make homes warm, safe and dry
- 21 Support insurance literacy campaign
- 22 Understand the scale of the non-weather-tight homes problem
- 23 Assess the capacity for large-scale remote working

Programme 3.2
Water and natural environment p. 90

We will ensure that Wellingtonians always have access to water services, in a way that enhances our natural environment.

- 24 Improve water systems through ecological interventions
- 25 Explore options for sewage sludge disposal
- 26 Ensure emergency water supply for Wellington Hospital
- 27 Invest in water and wastewater resilience and awareness

Programme 3.3
Transport and energy p. 98

We will work with infrastructure owners to ensure flexibility and robustness of transport and energy services in Wellington.

- 28 Support flexible energy supply
- 29 Support widespread adoption of electric vehicles
- 30 Leverage transportation investment to improve Wellington's resilience

An aerial photograph of a coastal city, likely Auckland, New Zealand. The city is densely packed with residential and commercial buildings, interspersed with green spaces and hills. A large body of water, the harbor, is visible in the background, surrounded by mountains under a clear blue sky. A vertical dashed red line runs down the center of the image. In the bottom left corner, there is a yellow arrow pointing to the left.

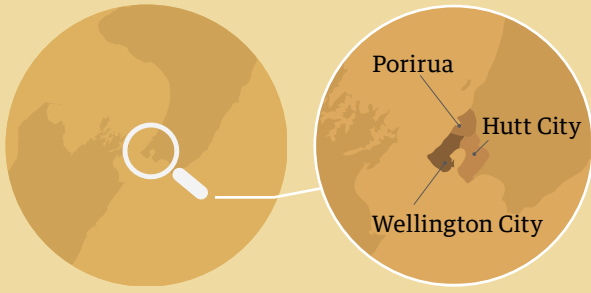
To achieve this vision we have committed to three goals and 10 interrelated programmes, each implemented through a series of projects.

Chapter 1

Looking back

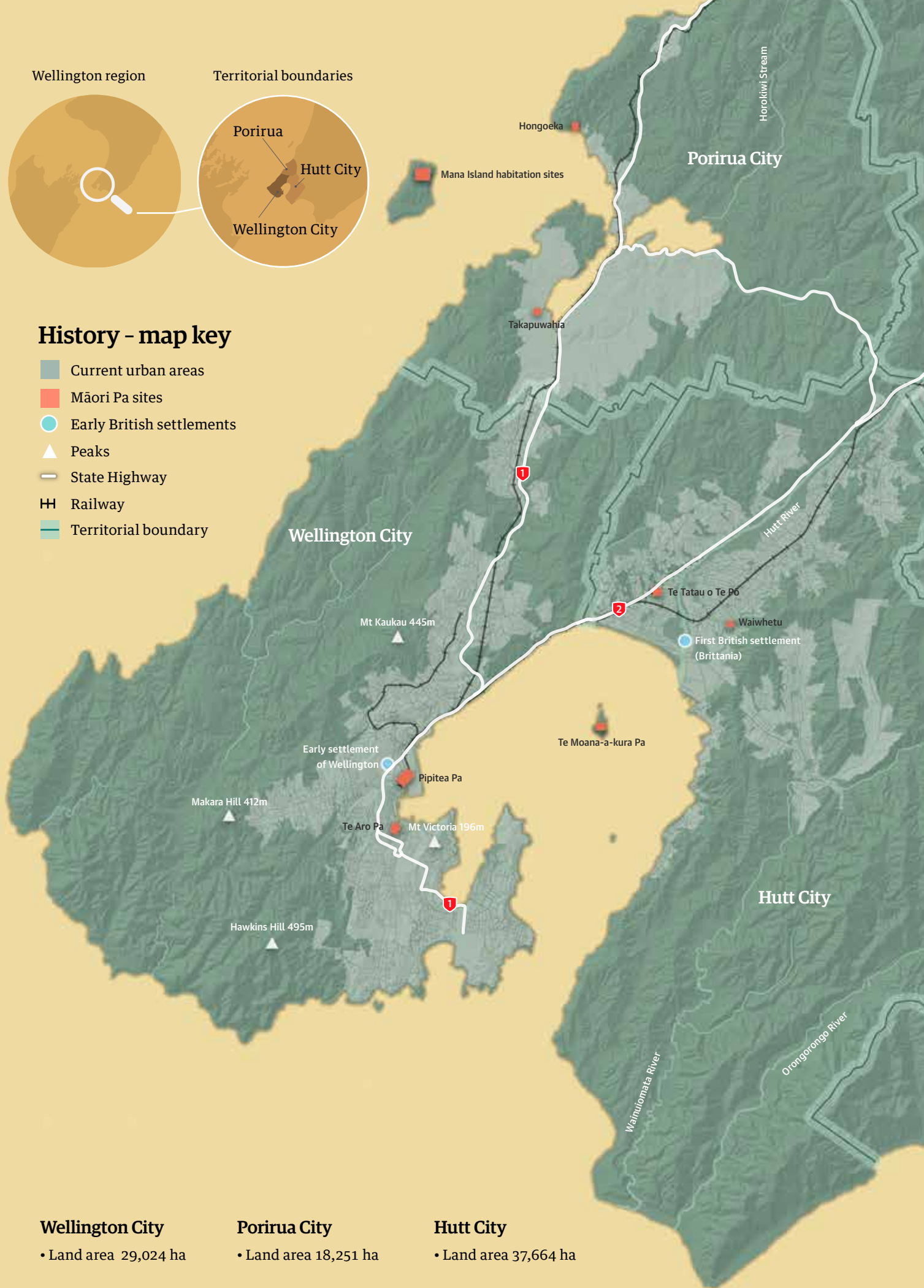
Wellington region

Territorial boundaries



History - map key

- Current urban areas
- Māori Pa sites
- Early British settlements
- Peaks
- State Highway
- Railway
- Territorial boundary



Wellington City

• Land area 29,024 ha

Porirua City

• Land area 18,251 ha

Hutt City

• Land area 37,664 ha

CHAPTER ONE

In Māori mythology, we live on the head of a great fish hooked up from the ocean by the hero Māui. Our rocky harbour entrance and mountain ranges were shaped by restless taniwha.



Modern science tells a different story, but it's no less dramatic.

RUMBLE

We know about upheaval, and we know about survival.



My name is Tania Smith.

My tūpuna came to Wellington with the great Ngāti Toa chief Te Rauparaha.



He'd seen the area's potential as a trading route, but creating a new life wasn't easy.



The first European settlers built a makeshift community in Petone.



Then the river flooded and it was swept away.



They moved across the harbour to where the city stands now, but there was conflict with the local iwi over land.



This shaky start was followed by an earthquake in 1855 so strong that it lifted parts of the seafront and drained the Basin Lake.



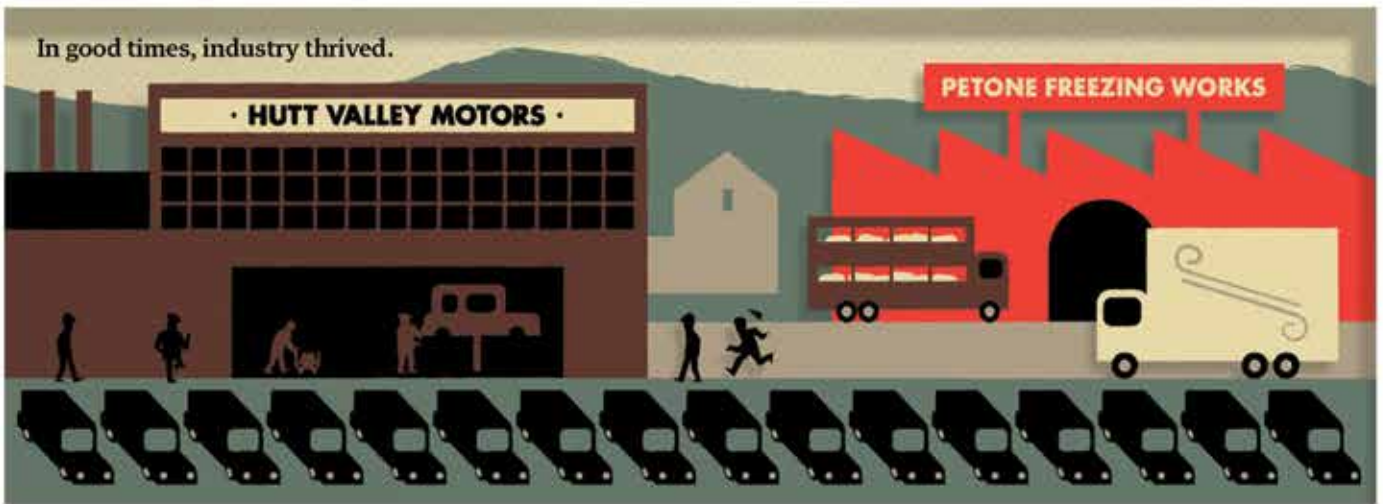
It also gave us the chance to rebuild better and stronger.

After Wellington became New Zealand's capital in 1865, our little town's population ballooned by 700%.

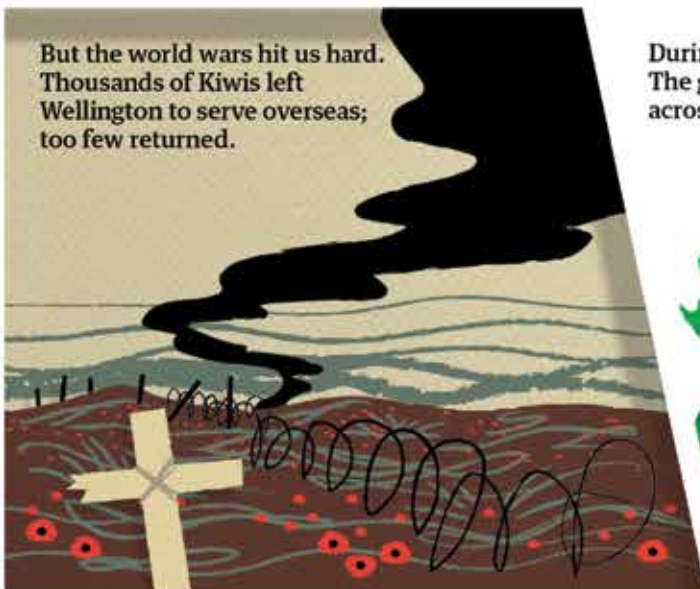


Roads and railways brought people closer, while power, water and sewerage systems made life easier... and cleaner!

In good times, industry thrived.



But the world wars hit us hard. Thousands of Kiwis left Wellington to serve overseas; too few returned.



During the Great Depression, the capital still grew and changed. The government put unemployed men to work on building sites across the city.



Post-war refugees from Europe helped grow our suburbs and our economy, and our workforce was strengthened by a wave of Pacific migrants.



Wellington was spreading out, but new suburban rail lines and motorways made it easy to stay connected.



From the late 1960s, major economic, social and cultural changes transformed the way we saw ourselves. Many businesses left Wellington, and unemployment soared.



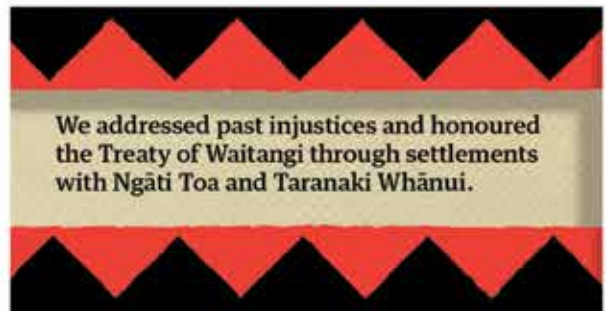
By the 1990s, the capital was making a comeback as "Absolutely Positively Wellington". Workers adapted into service-based and creative industries.



We got behind environmental and social issues, and invested in sewage treatment and waste recycling.



We addressed past injustices and honoured the Treaty of Waitangi through settlements with Ngāti Toa and Taranaki Whānui.



By the turn of the century, Wellington had become truly cosmopolitan. *Lonely Planet* called it "the coolest little capital in the world".

And we want to keep it this way, which is why in 2014 we joined the 100 Resilient Cities programme - Pioneered by The Rockefeller Foundation.



Chapter 2

2020s –
Our society
is transforming

Related projects

Goal 1 - People are connected, empowered and feel part of a community **p. 40**

Programme 1.1 - **Everyone thrives**

- | | |
|------------------------------------|-----------------------|
| 2 Prepare for an ageing population | 3 Reduce homelessness |
|------------------------------------|-----------------------|

Programme 1.2 - **Community resilience**

- | | |
|-------------------------------------|-------------------------------------|
| 4 Help communities build resilience | 6 Develop sustainable food networks |
|-------------------------------------|-------------------------------------|

Programme 1.3 - **Economic resilience**

- | |
|---|
| 8 Increase economic resilience of central city and outside hubs |
|---|

Goal 3 - Our homes and natural and built environments are healthy and robust **p. 80**

Programme 3.1 - **Homes and telecommunication**

- | | |
|---------------------------------------|---|
| 20 Help make homes warm, safe and dry | 22 Understand the scale of the non-weathertight homes problem |
|---------------------------------------|---|

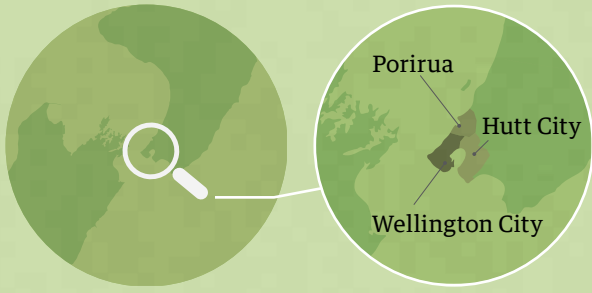
Programme 3.3- **Transport and energy**

- | | |
|-----------------------------------|---|
| 28 Support flexible energy supply | 29 Support widespread adoption of electric vehicles |
|-----------------------------------|---|

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|--|
| 30 Leverage transportation investment to improve Wellington's resilience |
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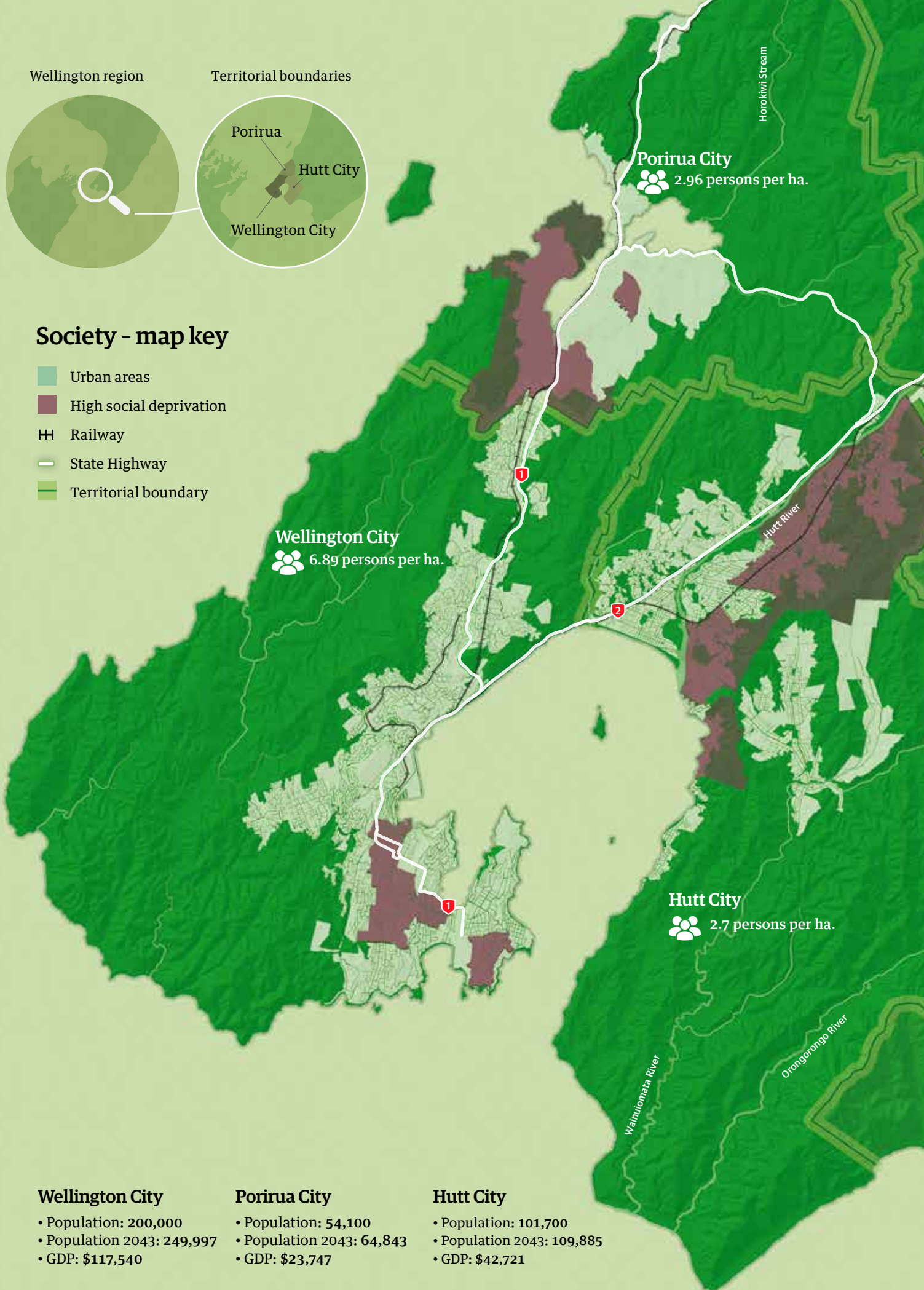
Wellington region

Territorial boundaries



Society - map key

- Urban areas
- High social deprivation
- Railway
- State Highway
- Territorial boundary



Wellington City
 6.89 persons per ha.

Porirua City
 2.96 persons per ha.

Hutt City
 2.7 persons per ha.

Wellington City

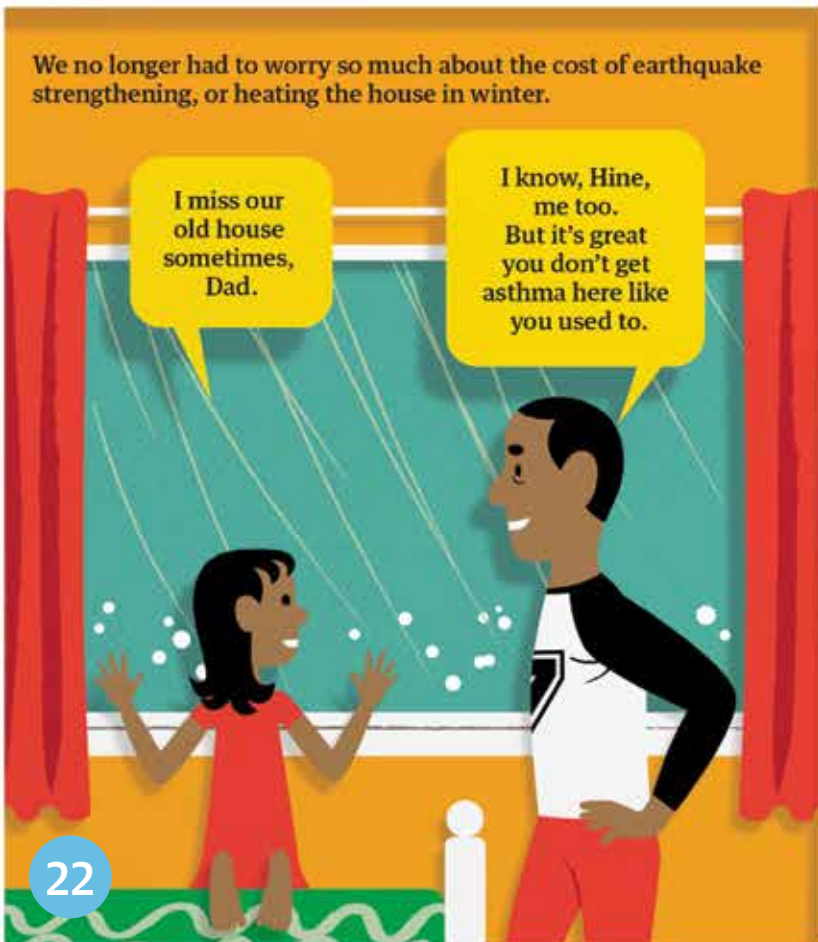
- Population: 200,000
- Population 2043: 249,997
- GDP: \$117,540

Porirua City

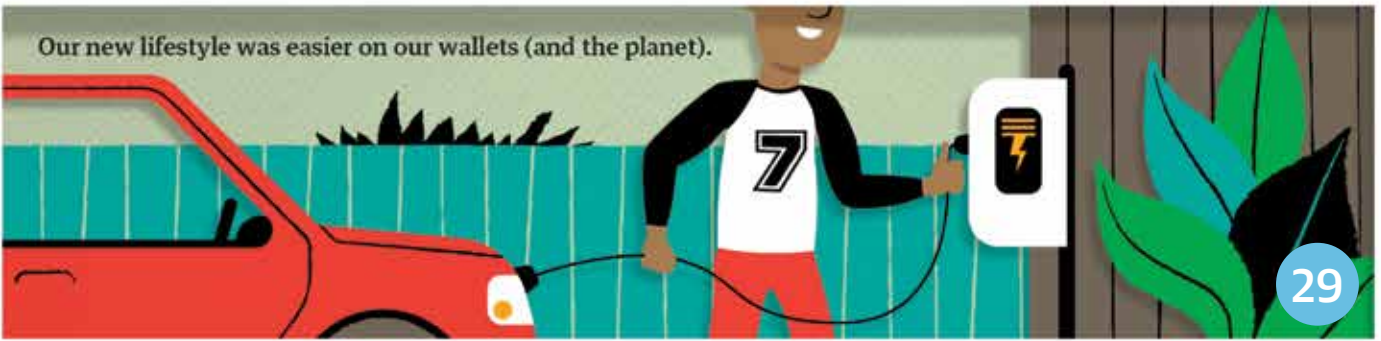
- Population: 54,100
- Population 2043: 64,843
- GDP: \$23,747

Hutt City

- Population: 101,700
- Population 2043: 109,885
- GDP: \$42,721



Our new lifestyle was easier on our wallets (and the planet).



29

While Tama studied law, he set up a mentoring programme for troubled kids.



3

Hine got a part-time job working with the silver surfers.

Great - I've never thought about it that way before!



2

David and I took the plunge and started our own business.

Whatever you don't use, you can sell back to the power company.



When Tama moved out, we thought about using his room as a home office, but decided to rent it out instead.

Wow, you're a writer? Can you help me with my essays?



20

Instead we found a great co-working space in Johnsonville.

There's a residents' association meeting here on Saturday, so I'm shifting my open studio to Sunday.

8



30

...some say we're leading the way

And we've still got the smallest carbon footprint of all Australasian cities!



28

Mostly we just want to make sure everyone gets the chance to thrive.

Mum! Check out my pumpkin!

6



Chapter 3

2030s –

The earth is moving

Related projects

Goal 1 - People are connected, empowered and feel part of a community **p. 40**

Programme 1.1 - **Everyone thrives**

1 Improve access to household resilience items

Programme 1.2 - **Community resilience**

5 Support community spaces in taking on wellbeing and post-disaster roles

Programme 1.3 - **Economic resilience**

9 Help improve business continuity planning

Goal 2 - Decision making at all levels is integrated and well informed **p. 60**

Programme 2.1 - **Governance**

12 Review Wellington Lifelines Group

13 Maintain monitoring and evaluation of resilience goals

Programme 2.2 - **Information**

14 Give Wellingtonians information they need to make decisions

15 Develop a virtual reality model of the central city built environment

Programme 2.4 - **Recovery**

18 Undertake recovery planning for the Wellington region

19 Carry out post-earthquake housing study

Goal 3 - Our homes and natural and built environments are healthy and robust **p. 80**

Programme 3.1 - **Homes and telecommunication**

21 Support insurance literacy campaign

23 Assess the capacity for large-scale remote working

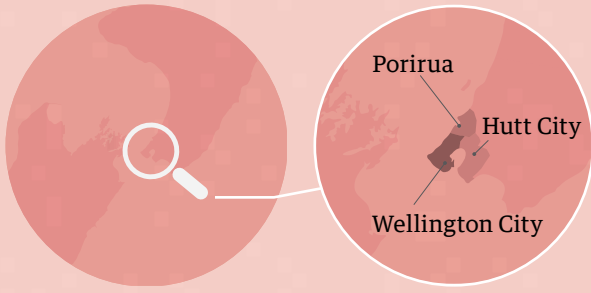
Programme 3.2 - **Water and natural environment**

26 Ensure emergency water supply for Wellington Hospital

27 Invest in water and wastewater resilience and awareness

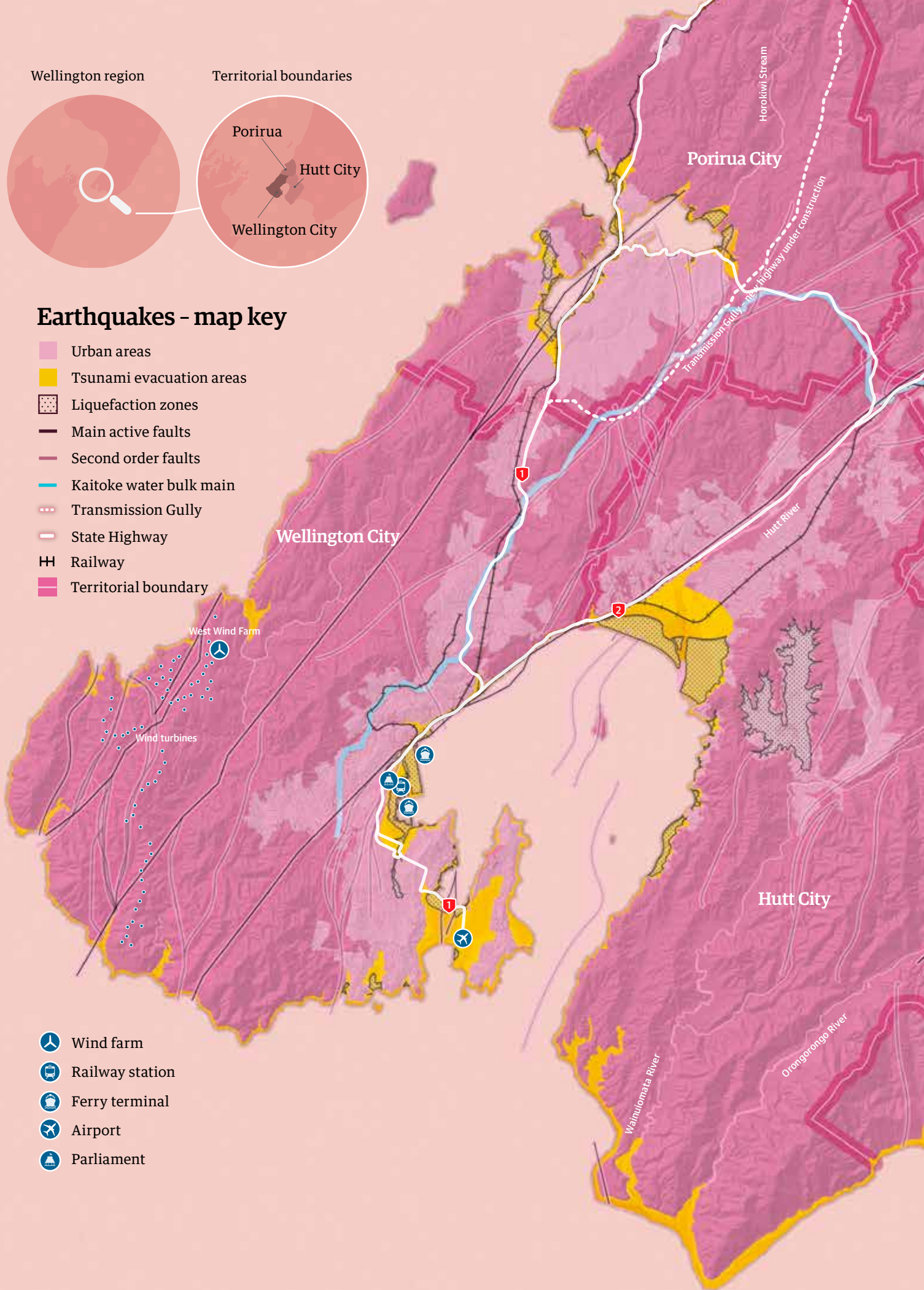
Wellington region

Territorial boundaries



Earthquakes - map key

- Urban areas
- Tsunami evacuation areas
- Liquefaction zones
- Main active faults
- Second order faults
- Kaitoke water bulk main
- Transmission Gully
- State Highway
- Railway
- Territorial boundary



- ⚙️ Wind farm
- 🚆 Railway station
- 🚢 Ferry terminal
- ✈️ Airport
- 🏛️ Parliament

CHAPTER THREE

The 2030s began as good years for Wellington, but it will be remembered as the decade of the earthquake.



It was a terrible experience but we were prepared.



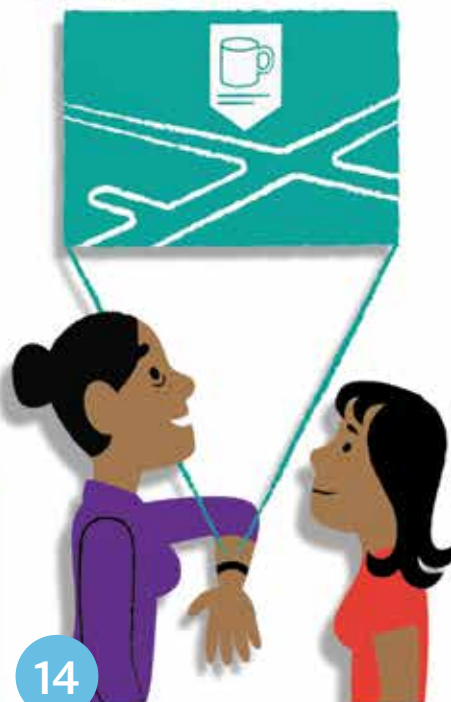
18

We all pulled together to share food...



1

knowledge...



14

...and experiences.

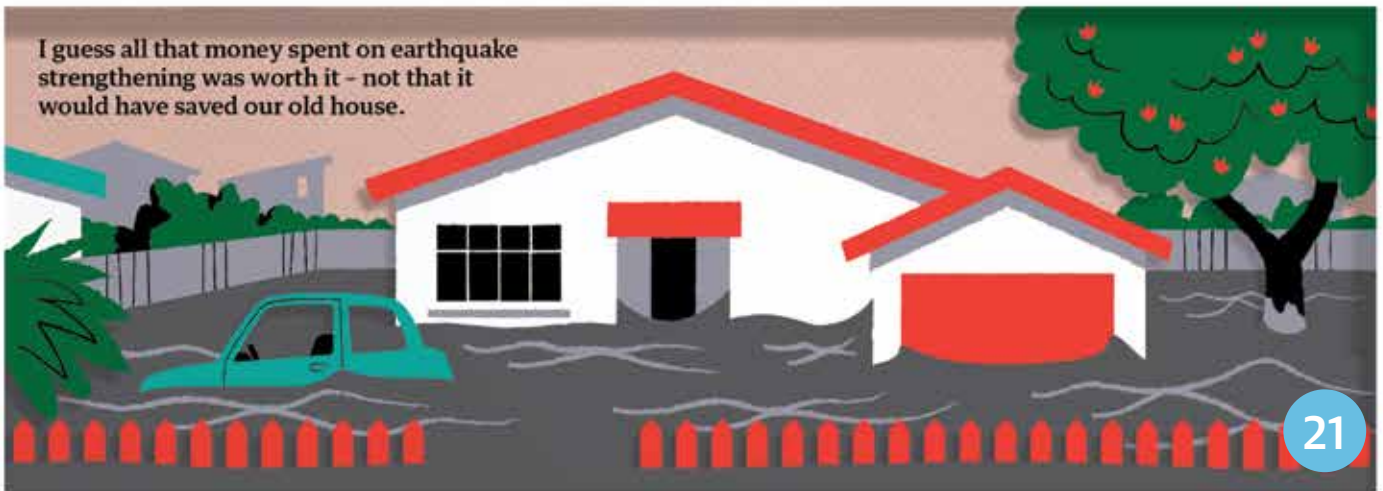


It was incredible more people didn't die in the inner city, and that most of the buildings survived.

It's warm inside - and you can charge your phones.



I guess all that money spent on earthquake strengthening was worth it - not that it would have saved our old house.



It took a bit of flexibility - and decent broadband - but most people were able to carry on working from home.

There's a message here from Sonia - they need their panel reconnected.



Some of our friends had to find temporary accommodation, but at least the councils had already thought about this.



Thankfully we have agreed how we will work together in advance...

12

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The water pipes failed, but that was no surprise, and we were able to keep the water flowing.



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And the money kept flowing too, thanks to our resilience insurance policy.

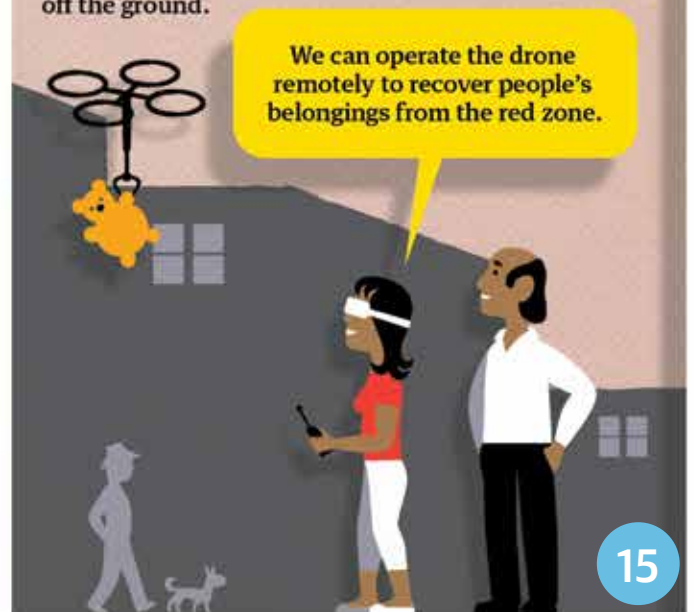
Yeah, we'll be all right, Mum - all the work on business continuity planning is paying off.



9

Access to a 3D model of Wellington and virtual reality technology meant new business ideas could still get off the ground.

We can operate the drone remotely to recover people's belongings from the red zone.



15

It's been almost 10 years since the quake, and Wellingtonians have shown what they're made of. We didn't just rebuild - we made the city even better than before.



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Chapter 4

2040s –

The sea is rising

Related projects

Goal 1 - People are connected, empowered and feel part of a community **p. 40**

Programme 1.2 - **Community resilience**

7 Develop disaster risk management plans for heritage areas

Programme 1.3 - **Economic resilience**

10 Improve understanding of workforce trends

Goal 2 - Decision making at all levels is integrated and well informed **p. 60**

Programme 2.1 - **Governance**

11 Introduce regulatory tools (including enforcement) for resilience

Programme 2.3 - **Adaptation**

16 Develop a communications and engagement strategy for the Adaptation Plan	17 Encourage climate adaptation actions
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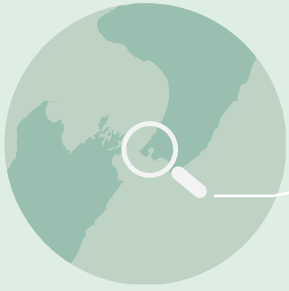
Goal 3 - Our homes and natural and built environments are healthy and robust **p. 80**

Programme 3.2 - **Water and natural environment**

24 Improve water systems through ecological interventions	25 Explore options for sewage sludge disposal
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Wellington region

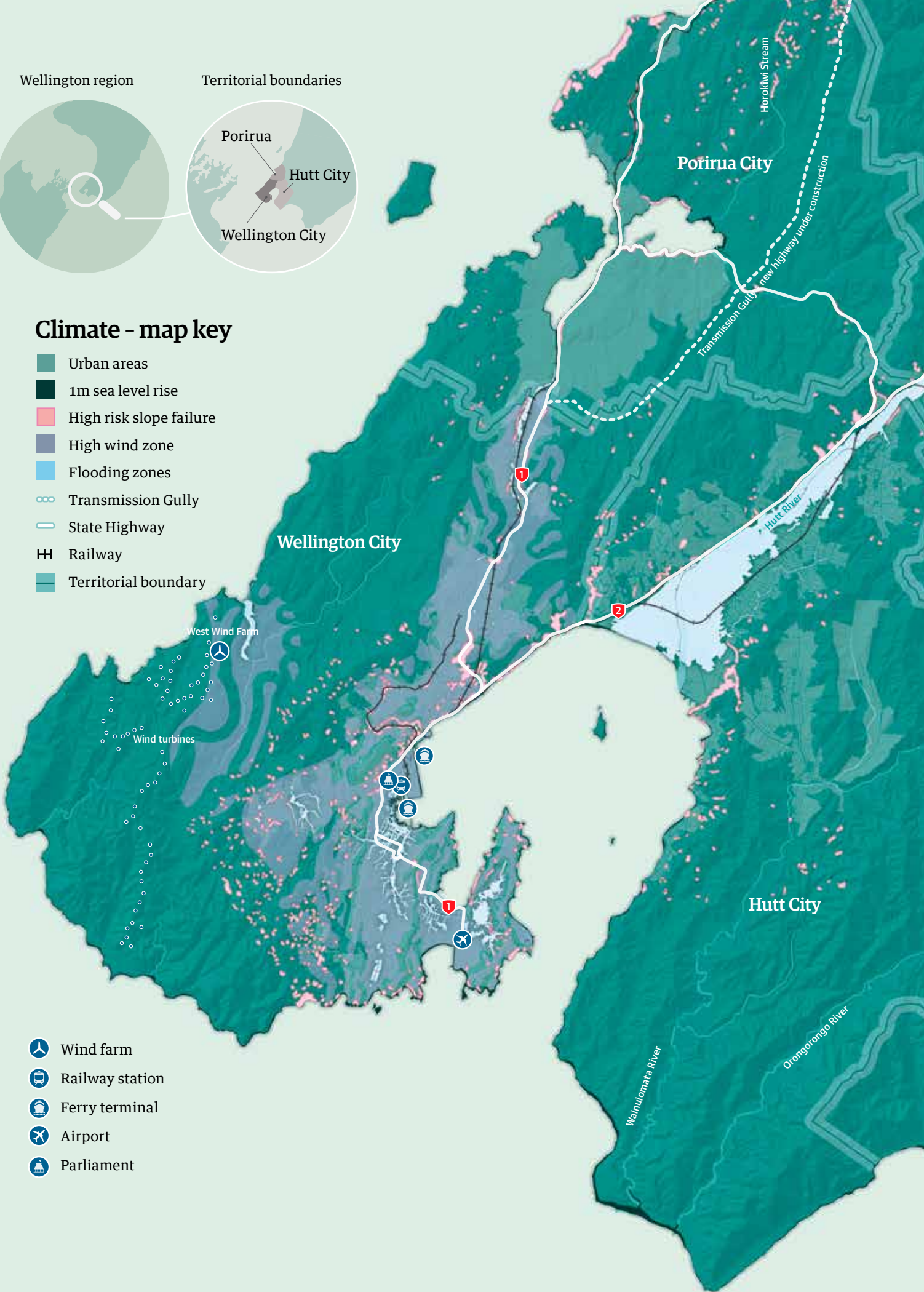
Territorial boundaries



Climate - map key

- Urban areas
- 1m sea level rise
- High risk slope failure
- High wind zone
- Flooding zones
- Transmission Gully
- State Highway
- Railway
- Territorial boundary

- Wind farm
- Railway station
- Ferry terminal
- Airport
- Parliament



CHAPTER FOUR

Note: Blue numbers relate to projects in this strategy

We all knew sea-level rise was happening, but it wasn't until some Pacific atolls went under that it really hit home.



Their people had to go somewhere, and many came to New Zealand. “Climate refugees” is what the media called them. The Niuean couple we hosted were soon more like family.



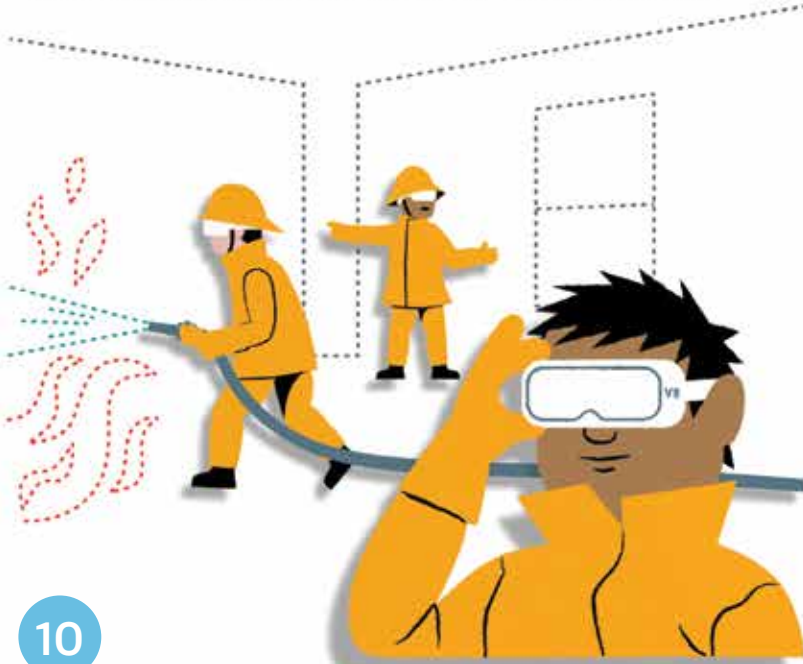
It wasn't just the sea, of course - the weather was changing too, and roads were being washed away. It was time to adapt.



We had help from experts in New Orleans, New York and Rotterdam, who'd already been through it. The work we did on the coast gave people a lot of hope.



Wellywood used to help people escape reality, now it's immersing them in virtual worlds so they can learn to survive reality at its worst.



It's still true what they say: you can't beat Wellington on a good day. But you can't beat it on a bad day either, because it's a city that can deal with whatever gets thrown at it.



10

My granddaughter found a photo of our old house the other day. It made me realise how much has changed since Wellington set its three resilience goals...



11

...and also how much has stayed the same. Wellington's still the world's coolest little capital, and Absolutely Positively Resilient.



7