

## Paving the way for a Waikato regional agreement

At the heart of the Golden Triangle, the Waikato is a growth engine for Aotearoa New Zealand. This paper highlights the value our region brings, the collaborative planning we have underway, and the key constraints and infrastructure deficits that are barriers to our continued growth and prosperity.

The opportunity before us is to pave the way for a Waikato Regional Agreement with the Government that will ensure long-term strategic infrastructure investment that builds resilience, enables growth, and improves wellbeing for us all.

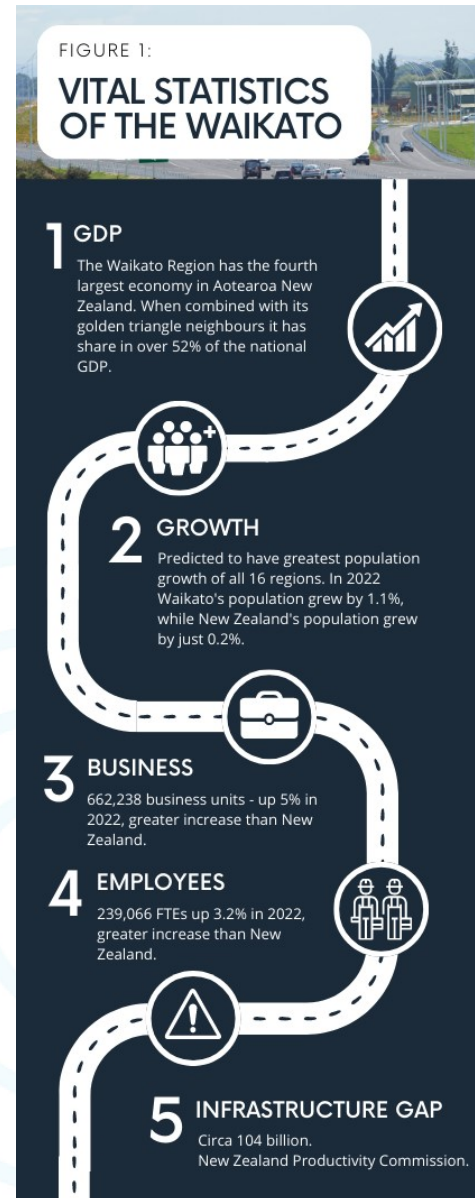
### The value our region brings

The Waikato Region is in growth mode. It has the fastest-growing population in the country,<sup>1</sup> with 26% of the 513,800<sup>2</sup> population being of Māori descent.<sup>3</sup> In 2022 regional growth exceeded that of Aotearoa New Zealand for both the number of business units, up by 5%, and full-time equivalent jobs, up by 3.2%.<sup>4</sup> Waikato is the fourth-largest economy of all regions<sup>5</sup> with a significant \$1.4bn being stimulated by the Māori economy.<sup>6</sup> It is uniquely placed with its own production base, proximity to markets, and connectivity to neighbouring regions for trade on a grand scale.

Waikato holds the unique role of connector within the Golden Triangle, connecting the city regions of Auckland, Hamilton, and Tauranga. These cities are part of a wider super-region that encompasses Auckland, Waikato, and the Bay of Plenty. This super-region is the economic powerhouse of Aotearoa New Zealand, home to over half of Aotearoa New Zealand's population, exports, and economy. In 2022, the combined GDP for the three regions was over 52% of national GDP.<sup>7</sup>

The collective challenge this poses, is how best to support and leverage projected growth with well-planned, timely and astute investment in infrastructure. Meeting that challenge requires an inter- and intra-regional level of collaboration, partnership and coordination, long understood and practiced by Waikato and its partners. Investment in infrastructure in this super-region, which has Waikato at its heart, will represent a high return for New Zealand. We have plenty of infrastructure plans as a region<sup>8</sup>, what we need now is a united, all-of-region ask, and visionary decision-makers to listen to and enable our plans.

The NZ Infrastructure Commission commented that 'New Zealand is one of the least efficient high-income countries when it comes to turning public investment into quality infrastructure. International evidence shows that good decision-making, supported by robust public investment management and a stable long-term pipeline of investment intentions, is essential for lifting performance.'<sup>9</sup> The infrastructure deficit in Waikato is an exemplar of the Commission's claims. Keeping pace and supporting imminent growth within the region through timely investment in infrastructure now is a matter of great urgency.



## Collaborative planning is underway

Examples of collaborative strategic regional planning already in place are the Regional Transport Committee and 'Future Proof - Te Tau Tītoki'. The Regional Transport Committee is a joint committee of all the councils in the region that determines transport priorities that are reflected in the Regional Land Transport Plan and aligned with the National Land Transport Plan. Future Proof is an overarching central and Northern Waikato strategy developed through an Urban Growth Partnership<sup>10</sup> between Local Government, Central Government, and Iwi.

Future Proof started its journey in 2004, catalysed by a recognition of the golden triangle's value and involvement in planning for the Waikato Expressway extension. This partnership demonstrates alignment and collaboration between relevant national, regional, and inter-regional strategies in support of priority infrastructure and funding needs.

Infrastructure deficits highlighted within the Future Proof strategy include the unlocking of land to enable integrated settlement, affordable housing, transport, water, growth in regional capability<sup>11</sup> and renewable energy.<sup>12</sup>

The strategic regional planning and development priorities agreed through the Regional Transport Committee and Future Proof provide a useful foundation to inform 'Regional Spatial Strategies' (RSSs)<sup>13</sup> – a new requirement for strategic regional planning. The Waikato has already done its homework in building a more comprehensive regional approach to planning and is well placed to align with the RSS and National Planning Framework.

## What we're up against: growth constraints and infrastructure deficits

Appropriate and well-maintained infrastructure, including social infrastructure, is fundamental to enabling productivity and prosperity. Waikato and the wider super-region are suffering from a widespread infrastructure deficit. That deficit is seriously constraining both sustainable economic development and resilience. Regional industry leaders have identified the following constraints to growth as priorities requiring urgent investment:

1. **Transport.** Safe and resilient roading is critical to the efficient movement of people and freight in the region. The region is committed to enabling safer transportation, more reliable and efficient freight movements, delivering alternative mode outcomes, reducing carbon emissions, and providing equitable transport options. An example of that commitment is the Metro Spatial Plan Transport Programme Business Case.<sup>14</sup> The region also recognises the need to continue improving its transport links to neighbouring regions, with connections to the Bay of Plenty being a particular area of concern now that the Waikato Expressway has transformed the region's connectivity to Auckland. Thus, priority roading projects for the region are:
  - a) The four-laning of SH1 between Cambridge and Piarere
  - b) The four-laning of SH29 to open up the eastern corridor to the Bay of Plenty
  - c) Improvements to SH1 between Taupō and Tūrangi
  - d) The Southern Links project which links SH1 from Kahikatea Drive in Hamilton to the Waikato Expressway at Tamahere and SH3 from Hamilton Airport to central and east Hamilton
2. **Housing.** The region recognises the decline in homeownership, especially within Māori and Pasifika communities.<sup>15</sup> The Waikato Housing Initiative reports a 7,500 shortfall in housing and predicts the need for a further 51,000 homes over the next twenty years.<sup>16</sup> Regional stakeholders recognise that the projected increases in population and industry will require significant residential and industrial land to be enabled specifically through investment in water infrastructure, a key enabler of housing. They are committed to a compact and

concentrated settlement pattern integrated with a planned transport network, striking a balance between green- and brown-field development.

3. **Water.** The projected increase in industry and population will have serious impacts on fresh, waste and stormwater infrastructure – all of which are already under significant stress.<sup>17</sup> Regional stakeholders are committed to a fit-for-purpose regionally integrated, approach to resolving water infrastructure needs. This is based on the adoption of new and emerging technologies along with encouragement of water-wise communities. Wastewater infrastructure in the region is of particular concern as it is one of the critical constraints to enabling housing capacity and industry growth. There is priority investment needed in southern and northern parts of Hamilton and for high-growth settlements in the northern corridor, including Huntly Raahui Pookeka and Ngaaruawahia.
4. **Health.** Growing capability within the region is essential<sup>18</sup> and nowhere is it more needed than in the region's health system. New Zealand's health system struggles with a lack of investment in hard infrastructure, but its biggest challenge is a lack of investment in medical training. New Zealand has the highest dependency in the OECD on overseas medical graduates with some 42% of registered doctors sourced from offshore.<sup>19</sup> We have just two medical schools in New Zealand. In 2021 the Otago and Auckland Medical Schools trained a total of 561 doctors.<sup>20</sup> It is projected that an additional 890 doctors per annum will be required to keep up with a growing and ageing population,<sup>21</sup> including the identified need for 300 additional general practitioners.<sup>22</sup> A third medical school at the University of Waikato is logical, and given Waikato's significant growth path, must be supported.
5. **Renewable energy.** Transitioning to a low emissions economy is a priority for the region. Statistics New Zealand regional greenhouse gas emissions estimates have shown the Waikato is Aotearoa New Zealand's highest emitter of carbon dioxide equivalents<sup>30</sup>. Support to increase renewable energy generation infrastructure will enable the Waikato to actively target net zero carbon emissions and plan to accommodate growth and the related rise in energy demand. Increased sustainable economic development opportunities will follow as the region leverages its strategic advantage of abundant natural resources, including a long coastline with strong and consistent winds and the Waikato's existing hydroelectric and geothermal energy resources.

### Infrastructure has economic and wellbeing benefits: the case of SH29

The much-needed upgrade of SH29 is just one example of an infrastructure deficit seriously constraining both inter- and intra-regional connectivity and productivity. It is the critical eastern corridor that connects Tauranga and the Bay of Plenty to the Waikato, and is the only HPMV (high productivity motor vehicle) route connecting the Bay of Plenty through to Auckland. This sub-standard highway has a safety ranking of just 2 in places, whereas the recommended rating for National High Volume state highway is at least 3-4.<sup>23</sup> The route represents a significant pinch point in the roading network, and its upgrade would provide clear benefits for all.

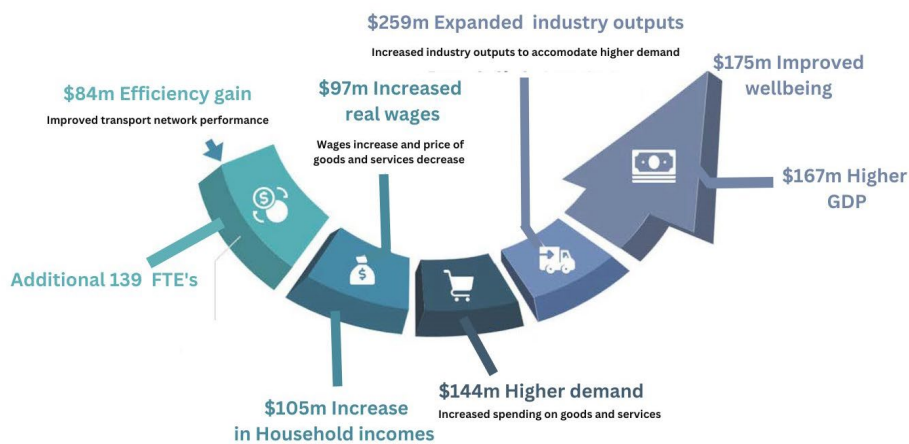
Looking at an upgrade of SH29 through incremental safety upgrades and roading cost-benefit ratios undervalues the connectivity, economic and wellbeing impacts. The four-laning of SH29 would have a ripple effect on the economy providing benefits in safety, logistics, reduced travel times, GDP, industry, and labour productivity. Just as strategic roading provides network effects (greater efficiencies) and greater economic benefits, aligning roading improvements with rail, ports, housing, water, education, health, and renewable energy has the potential to

provide significant regional benefits to our communities. These cumulative benefits would far exceed the cost of the road.

The four-laning<sup>24</sup> of SH29 is estimated to yield benefits for the super-region on an annual basis of increases in GDP by \$328m, full-time equivalent jobs by 266, and increases in household incomes by \$149m.<sup>25</sup> Other benefits include efficiency gains, higher real wages, increased demand and industry outputs, safety, community connectivity, and improved wellbeing.

Figure 2 below demonstrates the benefits to the Waikato that the eastern corridor connector would provide.

**Figure 2. Annual Impact of dualling SH29 for the Waikato Region**



It is time to take a long-term, integrated investment approach to infrastructure and establish the funding mechanisms to achieve that.

### Adding to our funding toolkit

When fuel excise taxes were introduced in the 1970s it was intended that a Capital Fund would be set up alongside. Taxes were to fund maintenance and the Capital Fund was to fund projects. The taxes were introduced but the Capital Fund was not. The Capital Fund would have created more certainty for infrastructure planning and acted as a co-investment mechanism. Instead, we have remained in a continual state of underinvestment in vital infrastructure over the last 50 years.

In 2022 the NZ Productivity Commission calculated that 'Infrastructure owned or funded by the public sector has not kept up with population growth. The estimated value of New Zealand's "infrastructure gap" – the value of what New Zealand should have built but has not – sits at an estimated \$104 billion.<sup>26</sup> Treasury has added to that figure based on estimates of future infrastructure needs – when combined, the past and future deficit in infrastructure assets sits at \$210 billion.<sup>27</sup> Not only have we fallen behind, but we have also suffered multiple costly delays. As we have seen with the Waikato Expressway, the planning and delivery of a major piece of infrastructure can be a decades-long exercise (40 years to date) with penalties for delays. Principal Economics calculated that 'If we assume that the Waikato Expressway had been completed 14 years earlier, the New Zealand economy would have saved a total of \$4.7 billion (over 14 years). Compared to a total cost of almost \$1.9 billion.'<sup>28</sup>

Our current model of infrastructure funding does not support certainty or long-term planning and implementation. Potential co-investors, such as various levels of government, iwi, the

Accident Compensation Corporation, the New Zealand Super Fund, local and international investment funds, and other private sector players, require certainty to invest with confidence. A government fund and a long-term plan would help, but we need to get going. We urgently need a review of our current infrastructure funding models along with recommendations for additional funding tools, such as an Infrastructure Capital Fund, intergenerational or value-capture funding mechanisms, tax incentives, and infrastructure bonds, that support co-investment.

Long-term strategic infrastructure investment is fundamental to New Zealand's sustainable future. The Waikato is experiencing rapid growth and keeping pace with appropriate infrastructure is crucial. It's high time that we put our collective efforts behind addressing growth constraints in the region and super-region.

### **Let's prepare, together**

We urgently need to address prioritised infrastructure deficits constraining growth within the Waikato. Infrastructure is one of the foundation stones of economic development<sup>29</sup> and wellbeing. It will catalyse latent opportunities for sustainable growth and development in a super-region that already accounts for over half of Aotearoa New Zealand's population and GDP. Infrastructure deficits and the factors constraining our growth are well identified by local government and industry leaders alike.

We need to build on our existing regional strategic planning processes, iwi relationships and forums such as the Regional Transport Committee, Future Proof, and the Mayoral Forum, to coordinate efforts and expedite a Regional Agreement with central government for the Waikato Region. Te Waka's role is to provide an economic development overlay, seek to galvanize private sector support, and attract investment partners.

The opportunity is to secure co-ordinated long-term infrastructure investment for the Waikato region that will strengthen economic resilience, social outcomes and prosperity for the region and Aotearoa New Zealand. The social and economic costs of inaction and delay are far too high. The era of ad hoc incrementalism and individual projects being pitted against one another must give way to long-term, integrated Regional Agreements and certainty of funding.

Let's continue collaborating and build a Regional Agreement together that can be progressed with the newly elected central government.

## Notes

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1. [Statistics NZ, Upper North Island regions dominate future population growth, 2022.](#)
2. [Infometrics, Waikato Region at a Glance 2022.](#)
3. [Statistics NZ, Ethnicity, Culture and Identity, 2018.](#)
4. Infometrics, Waikato Region at a Glance 2022.
5. [Statistics NZ, Regional GDP: Year End 2022.](#)
6. BERL, [Māori economy in the Waikato Region](#), 2019.
7. [Statistics NZ, Regional GDP: Year End 2022.](#)
8. [Future Proof Strategy 2022](#), [Waikato, and Bay of Plenty Freight Action Plan 2022](#), [Waikato Housing Initiative 2023](#), [Regional Public Transport Plan 2022-2032](#), [Waikato Regional Economic Priorities 2022-2025](#), Waikato Regional Plan – Freshwater, 2020, Future Proof [Metro Spatial Plan Transport Programme Business Case](#) 2022.
9. New Zealand Infrastructure Commission/Te Waihanganga, [Rautaki Hanganga o Aotearoa 2022-2052](#) *New Zealand Infrastructure Strategy*, p 109 2022.
10. Members of Future Proof include Waikato Regional Council, Hamilton City Council, Waipā District Council, Waikato District Council, Matamata-Piako District Council, tangata whenua representatives and Waka Kotahi, New Zealand Transport Agency (NZTA).
11. Education is a critical growth and wellbeing enabler. Our current number of young people not in education, employment, or training (NEETs) is higher than the national average and we have the second-highest truancy levels of all regions.
12. Future Proof partners and Te Waka are committed to meeting the energy needs of a growing economy and population by building on the region's history of harnessing alternative sources of energy such as the Rotokawa and Mokai geothermal power stations and the Te Uku Wind Farm to support a low emissions transition. They are also committed to reducing carbon emissions through development of a compact and concentrated urban form.
13. RSSs will incorporate The Natural and Built Environment Act (2023), the Spatial Planning Act (2023) and the forthcoming Climate Adaptation Act (2024). They will play a crucial role in the National Planning Framework (NPF) by facilitating integrated planning decisions across diverse but related jurisdictions and legislation. These decisions will encompass a range of factors, such as climate change, the natural and built environment, land transport, public housing and communities, infrastructure, and local government. NPF has a 30-year trajectory and will be regularly amended and informed by rolling generations of 10-year Local Government Long Term Community Council Plans (LTCCPs) and Regional Land Transport Plans (RLTPs).
14. Future Proof has developed a comprehensive [Metro Spatial Plan Transport Programme Business Case](#) which calls for road controlling authorities, land use planning agencies, public transport operators and government investors to work in a collaborative way to deliver an interconnected programme of activity over thirty years.
15. The Waikato Housing Initiative Working Group undertook a [2018 Stocktake of home ownership in the Waikato region](#), which showed that Māori and Pasifika peoples have lower household ownership relative to the general population.
16. [The Waikato Region Housing Initiative](#) undertook a Housing Stocktake in 2018 which determined the housing needs and availability across the whole housing spectrum, from owned or rented, to affordable, state, emergency, and other social housing.
17. [Future Proof Strategy](#), 2022, p82.
18. Transforming our learning environment and building the capability of our population in a way that supports industry and enables the retention of people within the region will require a strong foundational education that is engaging and place-based, along with quality, targeted workforce development and relevant tertiary syllabuses.
19. OECD, [International migration of doctors and Nurses](#), Figure 8.23 2019.
20. Medical Deans of Australia and New Zealand, [Student Statistics Report 2021](#).
21. The University of Waikato, [New Zealand's reliance on foreign doctors to plug gaps highlights the need for another medical school](#), 2023.

22. The Royal NZ College of General Practitioners has identified a shortage of 300 General Practitioners, [GP Future Workforce Requirements Report](#), 2020.
23. NZTA, [SH29 Piarere to Tauriko Programme Business Plan](#), 2016 p33.
24. Four-laning (or 'dualling') refers to the creation of two lanes each way, separated.
25. For methodology used to arrive at these figures please see appendix below.
26. New Zealand Productivity Commission, [Immigration – Fit for the Future](#), 2022.
27. Treasury, [Investment Statement 2022](#). Identifies a future infrastructure gap of \$106 billion if current public investment trends continue for the next 30 years. The estimate allows for quality improvements and rising sea-level impacts.
28. Principal Economics, '[Great decisions are timely](#)' 2022 Section 4.3.
29. Holmgren, J., & Merkel, A. (2017). [Much ado about nothing? – A meta-analysis of the relationship between infrastructure and economic growth](#). *Research in Transportation Economics*, 63, 13–26.
30. [Statistics NZ, Greenhouse Gas Emissions by region \(industry and household\). Year ended 2021](#)

## Appendix

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### Emulation of Principal Economics' Estimate of the Economic Effects of the Waikato Expressway

Principal Economics (2022)<sup>1</sup> produced estimates of the economic benefits forgone each year without the Waikato expressway (\$334 million). Sanchis-Guarner et al (2017)<sup>2</sup> provided evidence in the UK context of the linkage between road travel time (and reliability) and local GDP, employment, productivity, and real wages.

The actual achieved Waikato Expressway travel times were adjusted to what might be expected from SH29 reconfigured as a dual carriageway allowing for the latter's shorter length and hilliness. This information was used to estimate impacts in the Waikato and Western Bay of Plenty/Tauranga on regional GDP, employment, productivity, and real wages following Sanchis-Guarner et al (2017). The model was at a 54-industry level (Infometrics). Consumer-facing sectors were unaffected by improved travel access. Industrial and commercial sectors experienced small increases in output from firms relocating but no change to incumbent firms' output. Real wages and productivity rose (from both new and incumbent firms). These results were used to scale and range Principal Economics' results for the Waikato expressway to an emulation in respect of a "dualled" SH29.

For an economic impact analysis (EIA), two additional matters needed consideration:

- A 'gravity model' was used to allocate regional benefits to communities at either end of SH29. A gravity model of bilateral trade, in its most basic form, says that trade between locations (countries) is proportional to the product of GDP<sub>i</sub> and GDP<sub>j</sub> and inversely related to the distance between them.
- The results from Sanchis-Guarner et al (2017) are contrary to Economic Impact Analyses and their standard (limiting) assumptions and suggest the opposite; that markets (especially the labour market) respond to lowered transport costs and better reliability.

The revolution is to treat the impacts as if they are 'indirect' (i.e., knock-on effects to supplying firms) and apply only 'induced' (Type II multipliers).

Note in the case of Household Income, the estimates include both the 'induced' effect and the higher real wages that arise from productivity improvements.

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<sup>1</sup> Principal Economics (2022) Great Decisions are Timely: Benefits from more Efficient Infrastructure Investment Decision-Making', October, 2022

<sup>2</sup> Rosa Sanchis-Guarner, Teemu Lyytikäinen, Henry Overman, Steve Gibbons (2017) 'New Road Infrastructure: The Effects on Firms', 27 Jul 2017