Mihi

E ngā mana, e ngā reo, tēnā koutou katoa. Tēnā koutou me ngā tini pāheketanga kei waenganui i a tātau. Hāunga, ko te tūmanako e whakapapa pounamu ana ngā huarahi i mua i a koutou, ā, e pakake ana tō haere. Tēnā anō koutou, ā, tihe mauri ora!

Esteemed leaders of our communities, greetings to you all. Greetings albeit the challenges that still continue to impact us. That aside, we hope that opportunities before you are numerous and filled with reward. Greetings again. Alas the breath of life!

At a glance

How to read this submission

This staff submission from the Gisborne District Council is organised into the following parts:

A. Introduction | Our context
B. Questions and our submission points

A: Introduction | *Our context*

Tairāwhiti Maranga Ake! E tīmata mai ana i konei

Tairāwhiti rise up! It all starts here.

Our Region

Tairāwhiti has an abundance of cultural and natural assets. Our rich bi-cultural heritage and history of firsts, provide a strong sense of place and foundation for growth. Our fertile soils and warm climate are the foundation for a strong agricultural and horticultural sector.

The region covers a land area of 8,265 square kilometres. Within this is the untapped potential of the 228,000 hectares of whenua Māori, which is 28% of the land area in Tairāwhiti.

Our Council

Council is one of six unitary authorities (also referred to as unitary councils). We combine the functions, duties, and powers of a territorial authority with those of a regional council. The functions of territorial councils and regional councils are split.

Our role as a unitary authority, carrying out both regional and district functions, means we have an important role to play in delivering on national direction and our community's priorities for Tairāwhiti and its environmental and natural resource management outcomes.

We are subject to and enforce several pieces of legislation across a variety of activities. Increased legislative requirements have created additional work for Council in several areas, for example three waters implementation and resource management policy development.

Change and growth

Our region is a place where great things start. Growth in Tairāwhiti has become obvious over the past three years, increasing at a higher rate than expected. The population is now over 50,000 and continuing to grow. This growth has put pressure on our services and infrastructure.

Tairāwhiti is undergoing rapid change. New residents and families are buying and building homes, business is bringing new industry and services, communities are engaged and having meaningful conversations about our bicultural heritage, and kaitiakitanga is being practised and making a difference.

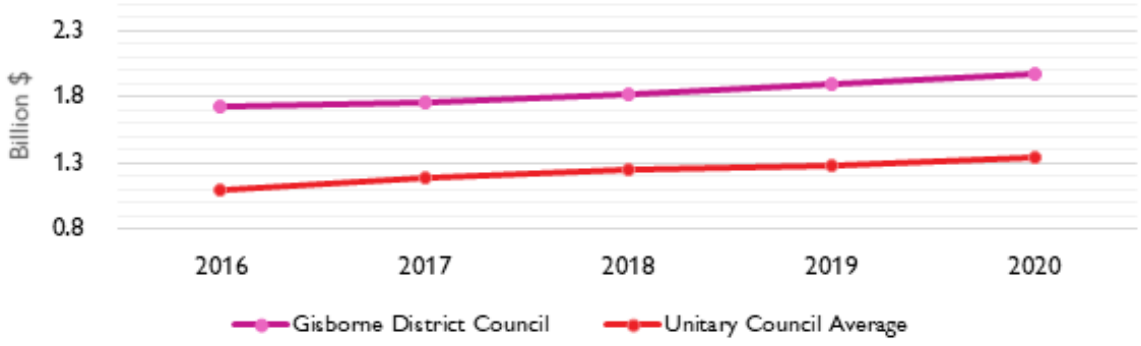
Over half of our population is Māori (53% percent compared to 16.5 percent for New Zealand). To realise our potential, we need to continue and further develop effective and meaningful collaboration with mana whenua to ensure iwi and hapū have a long-term role in the future planning and decision-making for the region.

We must act faster than expected to maintain, plan, and deliver the development infrastructure needed to support residential growth. We also need to provide long-term sustainable infrastructure and ensure that growth meets our communities' aspirations for healthy homes that are affordable, secure, and sustainable.

Our infrastructure

Council has assets of $2.3 billion. Of this, our infrastructure assets make up around $2 billion. This includes everything from waste, roads, and footpaths (network infrastructure) through to libraries, pools, and reserves (social infrastructure). We have one of the largest roading networks when compared to similar-sized unitary council authorities, but we have the lowest average household income and lowest number of rateable properties.

The graph below shows how the value of Gisborne's infrastructure assets compares to the average value of assets owned by three unitary councils, Nelson, Tasman, and Marlborough.



Four waters

Our four waters activities (water supply, wastewater, stormwater, and land, rivers and coastal) intersect with several the Government's priorities over the next three years.

We know that there will be new compliance requirements for safe drinking water. This will have implications for the council-supplied drinking water to the city because of the need for greater contact time before the treated water is conveyed into the pipe. Achieving this will require infrastructure upgrades and changes to operating procedures.

The reticulated water network supplies drinking water to about 80 percent of the population in Tairawhiti (those living in the Gisborne urban area) but there are more than ten thousand people in our rohe that rely on private water supplies for their drinking and daily use. Most of these people whakapapa to the area as whanau, hapū or iwi.

It is typical that these 'private supplies' come from a rainwater tank topped up from local freshwater springs, streams or bores – which are often located on another property. These informal water access arrangements (often dating back for decades) provide many households with their only reliable water supply.

This type of work-around-arrangement is borne out of necessity. Neither Council nor the communities living in these smaller settlements have had or have the ability to pay for the installation and upkeep of drinking water infrastructure needed to ensure enough quantities and quality of water is available.

Previous Government Drinking-water subsidy schemes were utilized for two small rural residential settlements (Whatatutu and Te Karaka), but the ongoing costs of upkeep, maintenance and connection fees have created an unsatisfactory arrangement that continues to be problematic for residents of those areas. Also, there is only one water carrier that services the East Coast communities, but this can be too costly for many.

Roading

The roading network makes up over 83% or $1.6 billion of our infrastructure assets. This is nearly double the amount for the average unitary councils ($675m). Our challenge is to look after our assets – especially the wear and tear on our roads – and maintain levels of services to our community in an affordable way.

Our roading and footpath network is in part funded by the Waka Kotahi NZTA Financial Assistance Rate (FAR). Over the first three years of the 2021-2031 Long Term Plan our FAR will reduce from 68% to 66%. This increases the rates requirement to fund the activity and places pressure on Council to reprioritise spending from other areas to continue the levels of service expected by our community.

Despite welcome investment from the PGF into our road network, significantly more effort is needed to catch up on deferred maintenance and maintain expected levels of service. This is particularly an issue for rural communities, where the substantial increase in heavy freight movements associated with the forestry sector has caused unprecedented wear and tear on the road network.

It is important ongoing maintenance and resilience interventions for State Highway 35 and State Highway 2 continue to remain a priority. Under the national prioritisation framework significant expenditure into key transportation routes (such as the Waioweka Gorge) becomes difficult to justify when looking at freight movements alone. There are continued pleas from businesses to address the vulnerability of access into and out of Gisborne via State Highway 2.

With climate change and increased heavy weather events, roads are not resilient enough to withstand these pressures. Emergency works spending per annum is already increasing to levels that are not sustainable for Council or Waka Kotahi. A fundamental re-design and re-routing of community connections (roads) will be needed in many (if not all) regions. This is part of our climate change adaptation requirements and needs to be well-planned both nationally through the National Adaptation Plan and funding, as well as locally. There will be significant investment needed to reroute connections and change the basis of our roading network and

how it functions. This needs to be addressed by the National Infrastructure Strategy as well given how many areas it will impact.

Infrastructure challenges

Our infrastructure challenges include:

Area	Challenges
Our assets are ageing, and getting harder to fund	• Ageing assets requiring decisions around renewal, disposal, or alternative solutions in line with what is affordable for our community. • Ensuring the community has access to aquatic facilities while the Olympic Pool project is being delivered. • The lack of Tairāwhiti-based large infrastructure construction companies is creating a lack of competition and increased capital and operational costs. • 60% of our public conveniences assets remain tired and difficult to maintain. We have more public conveniences per population than most other councils, they are widely dispersed, and many are in remote areas of Tairāwhiti making them costly to maintain. • Unexpected rapid growth and the demand for new housing is created enormous pressure to upgrade network infrastructure – particularly water, wastewater, and stormwater[1].
Climate change will impact the way we work and live	• The effects of climate change and extreme weather events on consent compliance for landfills. • Low lying land is at risk from being inundated from the sea, and damage to Council property and infrastructure from severe weather events, will increase. The 'managed retreat' approach to coastal assets will likely continue to be an area of debate as well as other coastal options. • The need for greater clarity nationally on how responding to climate change impacts will be managed, funded, and implemented. • Adaptation response to climate change including the relocation or replacement of some coastal and riparian assets where they are at threat.
Central Government guidance and expectations are changing	• The three waters reform programme will change the scope and role of Council as a water supplier.
Our population is growing	• The projected population growth and meeting demands of industry will influence operations and increase operating costs for our water supply. The City's primary water sources from Waingake and Mangapoike dams, and the supplementary supply from the Waipaoa River are reliant on

[1] 2021 Infrastructure Strategy (Draft)

	rain for replenishment. There is growing competition with other users for the finite amount of river water. • There is no capacity to provide more water, and water security is declining as the climate changes and landowners are switching to higher value crops, which also have higher water demands.
Our roading network is complex	• 70 of the region's 101 bridges on roads used by forestry are not High Productivity Motor Vehicle (HPMV) capable. Strengthening these bridges is costly and log freight is forecast to grow further. • Network usage pressures (such as forestry and other industries with substantial heavy vehicle usage), climate change and natural hazards exacerbate network vulnerabilities, which limit opportunities for improved economic development and community connectivity. • The geography and topography of the network is challenging and results in local roads being impacted by extreme weather events and hazards. • Material to build roads cannot be sourced from the immediate surrounds like in other areas of New Zealand due to unstable soils. Extra cost is incurred sourcing from quarries and priority given to the quarry owners. • Connectivity to other regions due to vulnerability of State Highways.
Finding the resources to deliver the essentials, while meeting community aspirations, is getting harder to do.	• Insufficient funding for the education and empowerment of community groups. • Anticipating and responding quickly to trends and changing levels of service. • Funding restrictions, both external and Council funding.
Environmental stewardship, and te mana o te wai is front of mind.	• Reducing wet weather overflows of diluted wastewater into rivers and onto private property. • Integrated Catchment Management Plans may impact on operational and maintenance practices (and increase operating costs). • Changes to operational maintenance practices to minimise ecological impacts and providing for fish passage will impact on our operations and cost of doing business. • Finding ways to fund assets that are not eligible for FAR such as wharves, carparks, and township upgrades. • Transforming our riparian and coastal margins into ecological corridors supporting mass native planting, to support natural buffers for our communities as part of adaptation to climate change. This will require significant external funding and will challenge our communities' expectations regarding reserve areas retiring from routine maintenance (such as mowing).

Solid waste is getting harder to manage	• The increased costs for disposal of solid waste to landfills, with government increasing levies to help meet zero waste targets. • The high volume of commercial waste (commercial volumes of solid waste are higher than domestic). • The reduced markets for recycled items such as some plastics and metals • Lack of space and capacity for some recycling activities (such as compost processing).

B: Submission points

Overall comments

The consultation document has not been easy to assess, and the Commission should consider further development and consultation prior to delivering the final draft. The recommendations are inconsistently presented and are often siloed – there several areas of duplication and overlapping matters that have not been addressed in conjunction with one another.

Proposed priorities.

It is difficult to interpret if there is a priority to any of the recommendations presented, currently as written it appears all of them are 'top priority'. The majority all fall in the same timeframes and require varying degrees of work to implement. A sense of priority would be useful for demonstrating what is critical to achieve for the future and what could be pushed out if resources do not enable everything to be done in the specified timeframes – like how the Climate Change Commission presented the priority of their actions in their advice. Additionally, a linking of pre-requisite options would reduce the siloed presentation and make it clear where there is a chain of actions needed for specific outcomes.

Priorities for action for local government include:

1. Assessment of current and future skill needs in civil construction, telecommunications construction, asset management and related skills (such as contract management and procurement).
2. Development of a skills strategy for the infrastructure workforce.
3. Assessment of factors underpinning the increase in construction costs and development of a plan to mitigate these factors where possible and appropriate.
4. Enactment of a broad and comprehensive spatial planning approach that goes further than just a focus on increasing housing and removing barriers for development.
5. Development of nationally consistent metadata for all asset classes.
6. Development of additional funding tools for transport and three waters and transition to enhanced road and three waters pricing.
7. Development of a transition plan for road pricing and the alternatives to roading.
8. Refinement of business case methodologies to better account for hard to measure benefits and inclusion of climate change risk and resilience (including emissions assessment).
9. Better integration of competing government legislation, regulations, and priorities.

The Taituarā recommendation to adopt a 3 horizons approach would be beneficial for framing the strategy in demonstrating where we are, intermediary actions and states, and what our overall end state is that we are working towards over the next 30 years. As written currently it is not apparent what a future state looks like and if the actions in the draft would be the only ones needed to get to that future horizon. This approach also enables flexibility which is important given the unknowns for the future and the levels of uncertainty for certain assumptions in the draft. For more information on this approach please refer to the Taituarā submission.

Other priorities: Te Taiao – the environment

As the environment was most important for 'Our Aotearoa 2050' respondents this should be included as a 6th priority. This addition would also integrate with other reform and policy work across Government with a focus on infrastructure and the role it plays in protecting and enhancing our environment, alongside the role of the environment in non-built infrastructure we rely on.

Community infrastructure

Community infrastructure is not sufficiently covered by the strategy. This creates a gap, especially for adopting a broad approach to spatial planning. There are significant elements of community infrastructure needed for community wellbeing. There is more of a focus on the type of community infrastructure (education and health) provided largely by central government; however, parks, libraries, museums, and the like are absent from the draft. The role of place shaping is important in an increasing digital world where work can be conducted anywhere. Council cannot ignore our community infrastructure and hope to still be a vibrant, attractive place to live. There is more to place shaping than just 'critical' infrastructure. The Commission should include a broader approach to community infrastructure in the final strategy.

Question 1 What are your views on the proposed 2050 infrastructure vision for New Zealand?

Submission

There is not a clear sense in the vision of where we currently stand against this vision and what the transition to the future might be. Although it is a 30-year vision there is currently no recommendations beyond the 10 year period to inform this either.

The environment should also be added into the vision as well as a te ao Māori lens to make the vision more aspirational and show a clearer transition to a new reality than is currently presented. For example, adding in the environment could be as simple as the following:

Infrastructure lays the foundation for our people, places, natural environment/te taiao and businesses of Aotearoa New Zealand to thrive for generations.

Places seems to imply our built spaces rather than spaces including the environment and it would be good to include both in the vision to demonstrate that they are not one in the same.

In terms of adding in a te ao Māori lens this is difficult to see in the current document in terms of what the future should look like and what cultural wellbeing improvement looks like for infrastructure. Once this is more well defined in the strategy suggestions on how this could be included in the vision would be easier to provide.

Question 2 What are your views on the decision-making outcomes and principles we've chosen? Are there others that should be included?

Submission

Outcomes

Although we support the three outcomes as they are currently drafted focuses heavily on value for money and misses other important considerations. The four wellbeings are mentioned under 'efficiency', but these can be hard to reconcile particularly around environmental and social benefits that do not have an easy to derive monetary value.

Te taiao (the environment) and how we interact and impact on it is important. An outcome specifically about the interaction and impact of infrastructure should be included in the Infrastructure Strategy to reflect the importance it had in the views of 'Our Aotearoa 2050' respondents, as well to reflect the importance that it has across all elements of

Government policy. This will also better reflect te ao Māori as is outlined on page 23 of the consultation document.

Te ao Māori or a cultural wellbeing outcome should be included. The current outcomes do not represent a vast shift in the outcomes that have been a part of local government infrastructure. The outcomes of the strategy need to be more reflective of cultural wellbeing to see a shift in how we give effect to the following statement on page 8 of the consultation document:
"All decision-making about infrastructure must be guided by Te Tiriti o Waitangi (the Treaty of Waitangi) and its principles, but specifically the obligation to partner with Māori. As well as this, we propose a fundamental principle that infrastructure should support oranga tangata or the wellbeing of people."

Decision-making principles

For 'future-focused' it is important to recognise through the explanation wording that we have new challenges where we cannot learn from the past. We also have a high level of uncertainty with several trends, and the likelihood of trends continuing and being able to predict the future based on the past is lower than may have been the case historically for forward planning. In addition to this the wording of this principle needs to include a focus on innovation. The outcomes and principles in the consultation document currently do not appear to encourage innovation or doing things differently. Noting that supporting innovation is a key part of this including funding and supporting research.

For 'focused on options' the highlighting of non-built alternatives is extremely important. These options will become increasingly important going forward and we may find ourselves in infrastructure environments where we need to make short term investments and solutions due to circumstances like climate change (for example 5 years instead of 100 years). If there is an increased emphasis on the environment throughout this strategy then it could go as far as to indicate that non-built alternatives should be considered first, for example in stormwater management.

For 'integrated' it will be important to ensure this starts from the idea all the way through to completion of build. This integration focus should also be on operational as well as capital requirements of infrastructure. This approach will also ensure we are smarter with our approach to infrastructure which will reduce waste and inefficiency – the classic example is the brand-new footpath that is then subsequently dug up 3 times in the year for 3 different routine infrastructure renewals. Although councils have worked on trying to coordinate capital works in local areas to reduce instances like the new footpath being dug up multiple times, as a country we can still do better and look further into operation of assets not just how they are constructed and maintained.

For 'evidence-based', the explanation does raise the question of the ability to trial and test out new solutions and the potential barrier to first movers under this approach. For some areas of wellbeing there may not be robust and accurate information about a decision on costs, benefits, risks, and impacts. A recent example of this for our Council is our work to remove mortuary waste from the wastewater treatment process and have a more culturally appropriate method of disposal. If we looked at this decision using the current framework presented it would be difficult to argue the case due to the heavy favouring of economic wellbeing. This infrastructure decision on paper looks like a high-cost low gain decision, yet the value for cultural wellbeing is immense even though it is unquantifiable.

Quantification and information requirements need to be flexible for cultural, environmental, and social wellbeing to ensure that a lack of data and modelling in these spaces does not inhibit progressing projects and decisions that will have a meaningful impact in our communities. Improvements to these three wellbeings are sometimes cumulative and are over

a longer period than some other quantifiable measurements (for instance under economic wellbeing) for infrastructure decisions.

A consistent approach to measuring the environmental benefits of infrastructure decisions will be key to a new way of showing the value and benefits of infrastructure investment into the future. For example, Waka Kotahi have a lot of power to direct local transport funding through their Investment Assessment prioritisation tools. They acknowledge that environmental benefits are often overlooked as they are not 'measurable'. Some work has been done to develop indicators and the evidence for these, but this work needs to be strengthened and integrated into other government investment frameworks to ensure consistency.

Question 3 Are there any other infrastructure issues, challenges, or opportunities that we should consider?

Submission

Additional challenges to those identified on page 29 are:

- How we reduce waste to landfill over the next 50 years – this involves both behaviour change and changes to solid waste infrastructure.
- Electricity and power supply - equitable bearing of use and network supply costs onto users.

There is a focus on the impact on existing assets due to sea level rise for climate change. Given the many other challenges existing infrastructure faces due to climate change, an acknowledgement of this should be included under the challenges. There is a sentence indicating that new infrastructure may be required due to the impacts of climate change and the need to enable a low-emission economy but the impact on existing assets is absent from the statement.

To respond to these challenges and issues a key opportunity is in cross-sector collaboration. The collaboration on new ways of doing things to reduce the risk and cost of first mover for changes that are important for addressing large-scale challenges and/or issues. For public infrastructure this will be less problematic due to the lack of commercial competitiveness.

To some degree local government do try to work together but resourcing change is a key issue to the success in this area, as well as the naturally risk adverse environment we operate in. With stretched resources and little political appetite for large rates rise to fund work that may or may not be a success it can be difficult to get momentum on ideas that could bring huge changes to our infrastructure.

As alluded to in the document, but not explicitly stated, working in partnership with Māori is an opportunity for improving how we develop, design, construct and maintain infrastructure. More focus on te ao Māori in the document is needed to highlight the importance of te ao Māori moving forward.

Te Mana o te Wai should be acknowledged in the strategy as its impact on infrastructure is important. For example, significant roading projects historically have been able to pipe streams and reclaim wetlands with little to no impediments. Although there is predominately local decision making for this, there is still a need to address Te Mana o te Wai in the strategy including more information on the response to this as a nation would also be beneficial for infrastructure. It is also an example of placing importance on cultural and environmental wellbeing in a decision-making model.

There is an opportunity through this strategy to change how we relate to infrastructure. The current system heavily favours large, fixed, one-point networks. The future of infrastructure should look at more distributed and green infrastructure solutions including incentives for new builds and retrofitting of existing builds. For example, more on-site private water storage for drier months, water recycling, and passive heat designed building to reduce heating requirements.

Question 4 For the 'Building a Better Future' Action Area and the Needs:

- What do you agree with?
- What do you disagree with?
- Are there any gaps?

Submission

Broadly we agree with 'Building for a Better Future' being identified as one of the action areas and the needs identified that sit under it as outlined on page 43 of the consultation document. We have made comment below on some of the needs identified and provided feedback for the Commission on what we believe needs to be addressed or considered when framing these needs and the suggested options under them. Further specific and targeted feedback is covered as appropriate under the relevant questions for this action area, in the absence of a relevant question any more specific information is also presented below.

Need F1. Prepare infrastructure for climate change.

This area for change needs to adequately address both adaptation and mitigation. The current representation on this need in the draft does not adequately address the role of infrastructure and construction of it in emissions reduction and the country's mitigation needs.

Climate change has or will have impacts on literally every aspect of life now or in the future. There are a wide range of portfolio Ministers and sectors with climate change interests, and it is key that a whole of government approach is taken with clearer national goals that account for and accommodate regional differences. We are already confronted by competing directions and requirements, concerted effort will be needed to assure alignment across all relevant national policy and legislation.

Our challenges include:

- Droughts and flood events put pressure on Tairāwhiti and the land and our environment.
- Building resilience to climatic extremes where impacts can be reduced by close-planted trees on erosion prone land.
- Being aware of anthropogenic climate change when developing planting programmes and conservation initiatives.
- Expanding our evidence databases to improve our decision-making.
- Tairāwhiti has a small ratepayer base, and this work must be balanced against other competing priorities.
- Adequately resourcing teams with highly skilled and capable team members.
- Securing sufficient funding to deliver key elements of our programmes and projects.

Councils will need to adapt their significant network of assets to the changing climate on top of supporting communities in managed retreat of their private property. Together, this means

councils will face prohibitive costs in both the short-term and the long-term under our current funding and legislative framework. Clarity in who plays what role and where liability and cost will sit needs to be mapped out well in advance of actions that may be required to enable councils to prepare their resources accordingly.

Rural communities in Tairāwhiti already have significant issues with water poverty and are reliant on tank water supplemented by purchasing water during dry periods. The quality of both rainwater tank and purchased water is an issue. This water poverty issue will be exacerbated in already stressed lower decile rural communities that will be faced with increased drought and an overall drier climate. This needs to be a key part of how we look at water into the future.

Stormwater assets

There is an absence of specific focus in the strategy on stormwater. It is a network asset class that most know the least about and have very little resource to improve asset data. Given the future impacts of climate change, a focus on prioritising improvements in asset condition and performance should be included in the strategy, it could be highlighted in need F1 or in other areas, or a combination.

Much of the stormwater network is partially reliant on geography for partial channelling. In urban areas the road network is a major conduit for stormwater. Service failures almost always result in an economic loss, be it an individual property or a whole central business district; or a public health issue (where for example, stormwater and wastewater co-mingle). Despite the consequences of asset failures, stormwater is something of the poor relative of asset classes.

Office of the Auditor-General reports for some years have shown that the level of stormwater renewals in any given year, is less than half the depreciation accounted for. Prima facie this suggests some level of underinvestment in stormwater assets. It is also an asset that historically has had little, or no state funding so there has been no state lever to drive process improvements.

Business case methodology

F1.1 recommends the amendment of business-case guidelines to ensure full consideration of mitigation and adaptation options. Incorporating climate change considerations into business case guidelines is a data and methodology intensive task. Abatement values will need regular review if they are to send the right signals for investment. Local authorities are currently planning on a triennial cycle which suggests a minimum review frequency of once every three years (though once every year would be preferable).

The Commission could usefully publish a framework/approach setting out how it plans to incorporate climate change into its investment and business case approach. That would be a useful exemplar for other investment agencies to follow. Alternatively, the Commission might commission or recommend that some other body develop such a framework based on practice examples in central and local government.

Need F3. Adapt to technological and digital change.

The following need to be further addressed in the strategy:

1. Need for better 'digital infrastructure' as digital technologies will underpin more and more of what everyone does all the time.
2. How digital/technology will enable work and services to be delivered differently. For example, ability to lower emissions, reduce energy use, change the infrastructure needs in the future.

3. How to prioritise the ability to use sensors and data to understand the use and performance of infrastructure.
4. How digital technology will enable and change how infrastructure design, build, creation, and repair and maintenance is conducted and how this will impact on affordability such as increased use of automation and robotics.

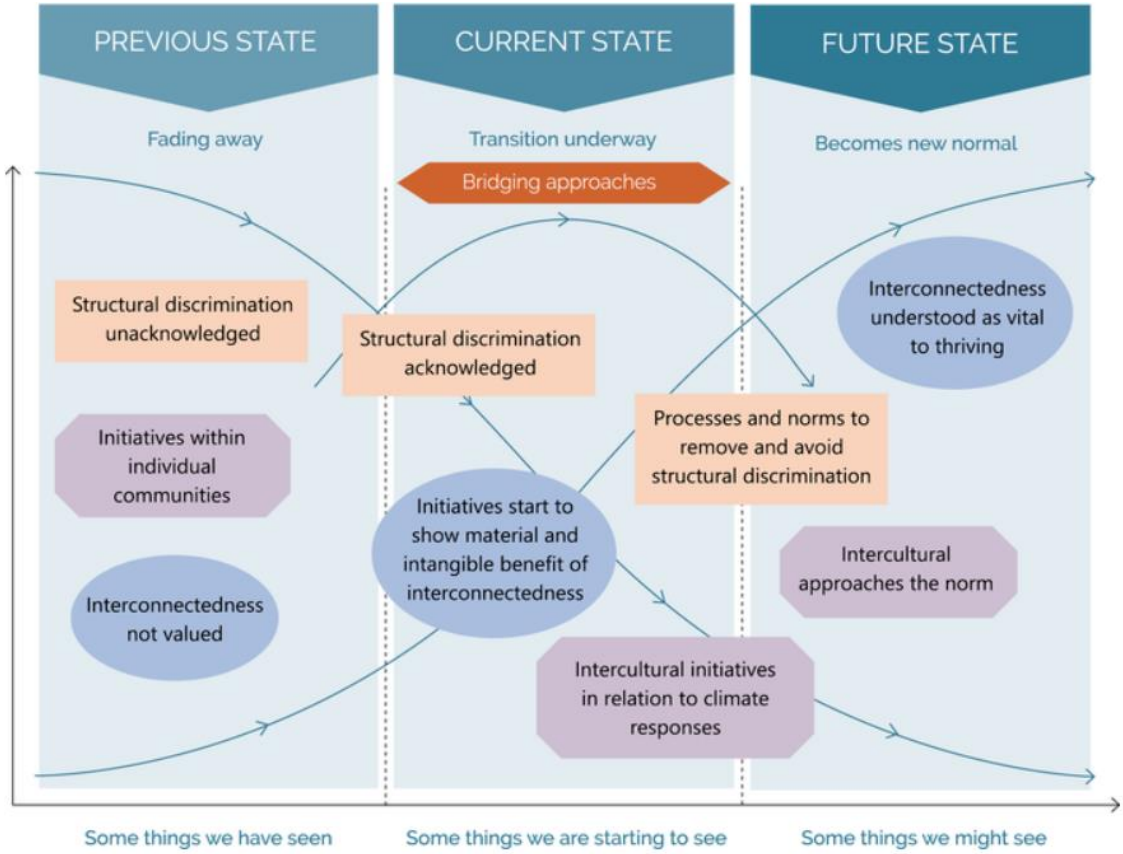
Frequent review and updates to the digital strategy are needed going forward. It needs to consider the continued increase in data over the next 30 years. For example, if using nanoscale sensors in a water treatment plant there will be a large amount of data that will be generated and require transferring and storing and for how long should it be stored. How international connectivity could change over the next 30 years also needs to be addressed including more emphasis on producing goods closer to consumers, and challenges in the movement of goods due to climate disruption and carbon cost.

The role of telecommunications in this need is not adequately addressed in the strategy as currently drafted. Telecommunications could be included as a significant area under this need (and other relevant needs across the action areas) or added as new need F7 under this action area. Many of the options are dependent on a reliable, resilient telecommunications network.

Alongside transport telecommunications is one of the arteries of commerce and increasingly access to public and private services. The dependence on a reliable and sufficient (capacity and speed of service) needs to be addressed in the strategy.

Telecommunications is also a crucial element of community interconnectedness; this is one of the five critical transitions local government is focused on through work by Taituarā[2]. A three horizons approach looks at what we are changing from, and what we are changing towards by bringing shifts in assumptions and systems to the surface. The three horizons map for community interconnectedness is:

[2] https://taituara.org.nz/Article?Action=View&Article_id=230



Although not a telecommunication failure per se the Waikato DHB cyberattack gives a glimpse into what a significant and prolonged telecommunications failure could impact currently. With increased digital solutions into the future the impact will only be felt wider.

The strategy should include recommendations on the resilience and security of the telecommunications network. A minor example of how this is important: recently our Council went for almost half a business day being unable to call or receive calls outside the organisation on our phone network due to fibre being cut in Tauranga. The focus should also include effects of climate change or natural disaster events as the network is not immune to these. It should also address the equality of access for low-income and rural communities. For example, the NZ COVID-19 app highlighted an inequity in access for low-income users who had limited or no mobile data and therefore could not use the functions in the same way as users that could afford adequate mobile data[3].

With increased points of access to digital infrastructure, cybersecurity will increasingly be a key issue for infrastructure. More emphasis is needed in the draft to address that although technology provides opportunities for enhancing infrastructure management, the digital and interconnected nature of these systems adds to greatly to system risk which requires increased resourcing requirements. For example, the internet of things creates opportunities for any function involving monitoring, motion capture and the like but they offer a wider number of points of attack[4].

National cybersecurity infrastructure assets need to be treated and included in the strategy as critical infrastructure. Currently local government and health systems are fragmented and although they are not all equally resilient against cyberattacks the upside is that if one system

[3] https://thespinoff.co.nz/tech/20-08-2020/download-the-app-then-use-it-leaves-too-many-of-us-out-of-contact-tracing-efforts/

[4] https://www.digitaltrends.com/news/ring-security-flaw-opened-doors-to-hackers/

is attacked and does go down the impact is contained to that specific system and region. For example, the difference between Waikato DHB and the Irish Health Executive failing to prevent a cyberattack would have a totally different area of impact. Resiliency of national and regional cybersecurity needs to be considered by the strategy.

National digital preservation infrastructure should also be included in the strategy. All infrastructure providers will be dealing with exponentially more digital material and the hardware and software in use will continue to evolve over time. Maintaining access to data over time will be a crucial input to well-functioning operations at all levels. The expertise is rare, so the cost of in-house digital preservation is prohibitive. The lack of access to digital preservation services is a digital infrastructure risk.

Need F4. Respond to demographic change.

For recommendation F4.1 is important to acknowledge that there is more to infrastructure risk than population. Although we agree with the intent, economic growth and transformation are also drivers of demand for infrastructure. This type of assumption modelling is already addressed by local authorities in their Long Term Plan requirements under the Local Government Act using the best and most up-to-date information they have available. This recommendation could be broadened to include all significant forecasting risks. Noting that not all infrastructure providers are subject to the current requirements under the Local Government Act for significant forecasting assumptions this could be an existing framework to expand to other providers and build on rather than creating duplicate requirements for some providers. A shared view of regional significant forecasting assumptions would also be present in spatial planning requirements.

Need F6. Ensure security and resilience of critical infrastructure.

For area F6.1 the following are important:

- Context of 'critical' is important – for example in an emergency versus everyday life to enable good wellbeing – the perspectives of critical infrastructure are different.
- A key part to the definition should be a focus on wellbeings – social, cultural, economic, and environmental. These need to be balanced in the definition so one wellbeing is not prioritised at the expense of others.
- An emphasis and inclusion of non-built infrastructure given how our environment is part of our system of infrastructure.
- Wide feedback should be sought in drafting the definition.
- A te ao Māori lens should be apparent in the definition. If the strategy aims to increase the participation and leadership of Māori across the infrastructure system, then being part of defining what that is from the start is important. It will be important to seek input from tangata whenua views across the nation to canvas regional differences in approach.

Question 5 How could we better encourage low-carbon transport journeys, such as public transport, walking, cycling, and the use of electric vehicles including electric bikes and micro-mobility devices?

Submission

In the longer term we need better integration of urban planning and transport to promote efficient cities based around transport and economic hubs. Better integration of urban planning and transport is needed in the proposed Strategic Planning Act. This may also require a rethink about the form and purpose of regional land transport and public transport planning, or if they are destined to instead become an operational action plan for the transport components of a spatial plan under the proposed Strategic Planning Act.

End-user transition to low emission technologies and practices need to be supported by urban form and specific types of development and practices need to be incentivised. For example, EVs will require different parking arrangements in residential spaces to ensure they can easily be charged. Currently requirements for parking through Government policy have been removed to encourage more compact urban development that supports public transport uptake. This will work better in some regions than others.

Accelerating the uptake of e-bikes and other e-micro mobility options as part of new active transport network infrastructure will be important. This could be achieved by subsidising the up-front cost purchase cost, partnering with local suppliers to smooth freight supply issues and funding the quicker roll-out of associated charging and secure parking facilities.

Affordability is already the main constraint for funding public transport networks and walking and cycling infrastructure. It is difficult to find the local share for walking and cycling projects due to other expenditure requirements for the network. Our Te Tairāwhiti Regional Land Transport Plan 2021-2031 includes three large walking and cycling projects that have been rated by the Regional Transport Committee as the highest priority for our region. However, initially they were all requiring funding from external grants for the local share if they were to proceed due to affordability issues. Council made the decision to increase rates and its debt levels to ensure the local share required was available.

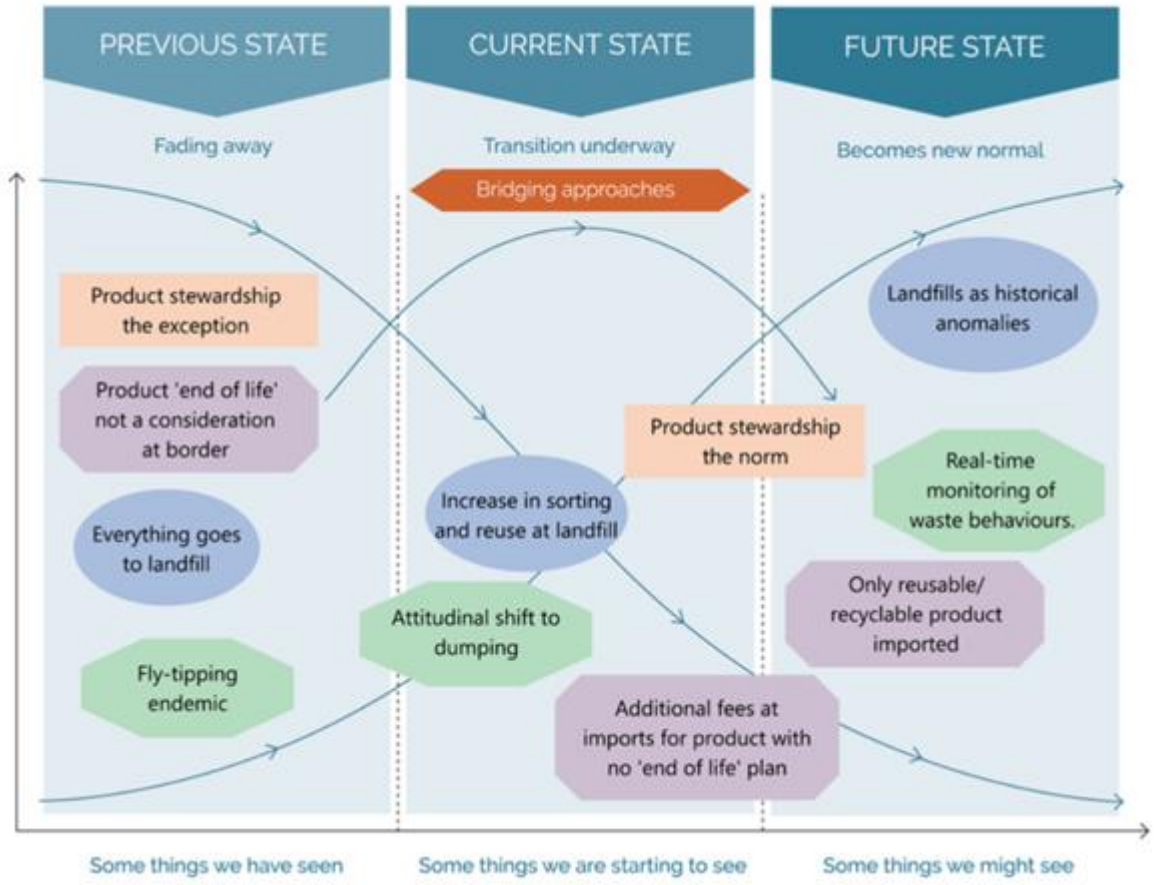
Even if national spending through Waka Kotahi on walking and cycling infrastructure increases, the ability of local authorities to pay their local share (to gain the national funding) will still be constrained by rates revenue, debt limits or the ability to get external funding. Waka Kotahi has used an increased Funding Assistance Rate (FAR) for projects in past to incentivise different types of infrastructure and enable local investment to be affordable. For example, a 90% FAR rate instead of the usual local FAR rate for projects meeting the criteria.

Question 6 How else can we use infrastructure to reduce waste to landfill?

Submission

The planned waste levy increases will have an impact on behaviours and has the potential to increase illegal dumping. It will also have an impact on the rates requirement and fees and charges for Council which will create public dissatisfaction. Reducing the waste we create as a nation, rather than trying to increase the costs of disposing of it, should be an area of focus for this Government.

Transitioning to a low waste society is one of the five critical transitions local government is focused on through work by Taituarā[5]. A three horizons approach looks at what we are changing from, and what we are changing towards by bringing shifts in assumptions and systems to the surface. The three horizons map for waste is:



We should be incentivizing and promoting building designs and practices that design out waste and pollution, keep products and materials in use, and regenerate natural systems. This includes managing the waste out of the disposal of infrastructure assets. Currently 'alternative' building practices and materials can be subject to more stringent building consent and inspection requirements. More work needs to be done to ensure that we standardise and incentivise the types of materials and construction practices we wish to see more of, and those that are not desirable are subject to more scrutiny or penalties.

Government needs to mandate separate collection of organics and ban organic waste from landfill to halve food waste at source by 2030 and divert more organic waste to local and regional composting. There are opportunities in large-scale composting of organic waste to create local employment for those that may be affected by job-losses in other industries. More investment in community scale composting to keep organic materials out of landfill is needed. Once we have better local and regional composting systems in place, we can ban organic material from landfill to make faster progress[6]. Austria, Germany, Finland, Norway, and Sweden have done this already.

[5] https://taituara.org.nz/Article?Action=View&Article_id=230
[6] https://zerowaste.co.nz/reduce-waste-to-reduce-emissions/

The Government is developing a new waste strategy this year, it is critical that it sets stretch targets and focuses on waste reduction to put New Zealand on the path to a low waste, low carbon circular economy[7]. Government needs to set waste reduction targets in the Waste Strategy and the Waste Minimisation Act for all waste streams, organic and inorganic. This includes single use plastics and packaging, e-waste, textile, and construction and demolition waste.

The waste hierarchy, which prioritises prevention, reduction, and reuse, can be used to help guide decisions and investment. We need to move away from focusing on recyclability and diversion from landfill. We need to support innovation within industry to design more reusable products, have more effective and efficient reprocessing of plastics, and to use safer alternatives to plastic. In 2015 the United Nations Environment Programme estimated that improving waste management practises and recovering more materials could reduce emissions by 15 to 20% (and more) if we are serious and purposeful in our actions to design waste out of the system to begin with and keep products in use for longer[8]. Developing New Zealand's resource recovery industry will create good local jobs to replace those lost in other sectors as we make the transition.

Government needs to use effective product stewardship to create reuse and resource recovery systems that keep materials in circulation and make things last as long as possible. Products that cannot be effectively recovered and recycled or composted need to be designed out of the economy, single use disposable products and 'right to repair' should be a priority. This includes the products that we import, councils have no control over what products come into the country, but currently have responsibility for dealing with it on disposal. An ideal future state is where 'Everything that enters the country has to have a sustainable path for its life-cycle as a condition of its entry'.

Product stewardship schemes make it easy for households and businesses to do good quality recycling. Investing in work being done by the waste sector on product stewardship schemes will help reduce our waste to landfill. For example, a beverage container return scheme will increase recycling rates and replace virgin raw materials with recycled content[9]. Another example is an e-waste scheme that will use 'urban mining' to recover precious metals and rare earths which reduces emissions from extraction and refining alongside the e-waste that goes to our landfills[10].

Funding is always a barrier to pursuing more ways to reduce waste at the source. To reduce emissions from production, consumption, and waste, invest the Waste Levy revenue in systems and infrastructure that target the top of the waste hierarchy to prevent and reduce waste in the first place and grow the reuse economy. Government also needs to invest a fair share in local, community scale solutions and SME innovators who are driving change. Currently the small community funds achieve some progress but on their own will not be sufficient to drive the change that is needed.

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[7] https://zerowaste.co.nz/reduce-waste-to-reduce-emissions/
[8] https://www.unep.org/resources/report/global-waste-management-outlook
[9] https://zerowaste.co.nz/reduce-waste-to-reduce-emissions/
[10] https://zerowaste.co.nz/reduce-waste-to-reduce-emissions/

Question 7 What infrastructure issues could be included in the scope of a national energy strategy?

Submission

Tairāwhiti has a vulnerable electricity network due to our isolation and geography. Current pricing is reflective of the large and geographically diverse area serviced, and the relatively small number of connections to spread the cost across. The cost of upgrades to distribution/transmission infrastructure must be shared across the existing customer base.

The aspiration is to:

- Solve the region's energy constraints and be self-sufficient using local renewable energy solutions.
- Be leaders in renewable energy and technology.
- Support environmentally sound economic development
- Lower the price of electricity for consumers.

There may be opportunities across the country to have multi-purpose infrastructure facilities, this could be investigated through the energy strategy or this strategy. For example, using treated wastewater to produce energy, the quantity needed to supply the plant's energy requirements, versus what leftover capacity there may be to put back into the grid. They would be a different scale and type of energy project but if every infrastructure facility looked at how their 'waste' products could generate electricity for their own plant the cumulative effect could have an impact.

The strategy could target high energy users of the grid to become more self-sufficient to reduce their needs and free up energy for the projected increase in demand as we move towards EVs and other electricity dependent technology.

This type of approach would likely be more cost-efficient for new builds rather than retrofitting but could provide improved value for spend on new infrastructure.

Question 8 Is there a role for renewable energy zones in achieving New Zealand's 2050 net-zero carbon emissions target?

Submission

If renewable energy zones are recommended this needs to be integrated into the Spatial Planning Act plan process to ensure that is an integrated infrastructure approach.

Question 9 Of the recommendations and suggestions identified in the Ministry of Business, Innovation and Employment "accelerating electrification" document, which do you favour for inclusion in the Infrastructure Strategy and why?

Submission

The infrastructure aspects presented from the MBIE document should all be progressed.

Preparatory work for distributed energy resources (DER) should start to enable more incentives to consumers to become small scale producers and potentially self-sustaining. A self-sustaining

approach for domestic users, particularly for places that are 'out of the way' would be beneficial. Selling or connecting excess energy to batteries or back into the grid could help with more renewable energy being used throughout the year. When domestic users install these options, their behaviours tend to adapt to their infrastructure for example, those on solar run dishwashers and washing machines during the day rather than at night. In addition, there could be subsidies for large-scale infrastructure and commercial buildings that incorporate energy generation and energy saving into their builds and operating modes.

Offshore options could increase our options as a country and should be investigated. A regulatory framework worked through in advance of them being realised to ensure we incorporate te ao Māori into the design of the framework.

Question 10 What steps could be taken to improve the collection and availability of data on existing infrastructure assets and improve data transparency in the infrastructure sector?

Submission

A standardised approach to infrastructure metadata would provide clarity for all providers on expectations. This would enable efficiencies in making this available as well as there could be a single delivery mechanism. The commonality across providers would enable there to be comparable data in areas, currently it can be tricky to do this due to the variety in approaches to data. This could also enable a platform for broad open data and real-time data, having one platform would enable resources to be concentrated in one place for cybersecurity and other digital infrastructure considerations.

An open data platform with common metadata would enable open data challenges across a broader scale like those held in other countries. This could enable faster innovation and progress for the sector.

A single platform would need to consider privacy issues on any 'zoom' tool. It would be important for providers to have this ability but not any open platform, like the approach that is taken with the Census data so individuals cannot be identified.

Funding to enable improved data would be key to incentivise improved data, alongside legislative and regulatory mechanisms.

Another consideration is whether there is certain data that the Commission believes should be submitted annually, like how councils need to submit resource management data to the Ministry for Environment annually. With a standardised approach and a potential collaborative platform, this annual submission process might only need to be a temporary measure until these were established.

It is important to prioritise setting up any data infrastructure so those already working in this space are not disadvantaged. For example, Taumata Arowai will become the 'central holder' of information from 'water suppliers' (everyone other than single domestic suppliers), so will be designing how they capture and keep this information. This will be the same situation for the new water entities, who will assume ownership and responsibility for water infrastructure. Delaying too long on making this a priority if there is a desire to have data transparency could mean expensive rework is required.

Question 11 What are the most important regulatory or legislative barriers to technology adoption for infrastructure providers that need to be addressed?

Submission

Currently regulatory frameworks and legislation tend to enhance the first-mover disadvantage. The costs of making progress or a change prohibits smaller providers and a lot of councils from straying from current practices until others have moved. Councils sometimes struggle to get backing for new approaches due to costs to develop them and the potential for failure being high for risk-averse elected members.

Rates' affordability is key for councils, prudent fiscal management as required under legislation can often mean that innovative technology costs are unattainable due to high upfront costs (not just for the product but also the cost to transition and implement) and there being little to no reduction in operational costs making a business case difficult to promote.

Technology solutions are predominately a service model – this means that instead of high one-off capital costs and low ongoing costs there is now a model where the upfront costs are lower, but the ongoing costs are higher. This model means that expenditure is predominately operational and cannot be capitalised as an asset as we do not 'own' it we pay rights to use it. This is problematic for local government funding as operational expenditure has a higher impact on rates than capital expenditure and if it is not capitalised it cannot be depreciated against. This makes it difficult to budget for and fund. Currently the burden to pay for the IT infrastructure we do have is high, introducing more IT infrastructure would have a significant impact on rates.

Clear national direction for infrastructure metadata would be another beneficial element that would reduce uncertainty when assessing technology options, and prevent investments being made that do not meet potential future requirements.

Question 12 How can we achieve greater adoption of building information modelling (BIM) by the building industry?

No comment.

Question 13 How should communities facing population decline change the way they provide and manage infrastructure services?

Submission

Large geographies and several small communities across our region create a challenging landscape for service provision. Continued urbanisation and rural population decline only enhances this issue in Tairāwhiti. Self-provision of service starts to become the most cost-effective way to deliver services when economies of scale cannot be realised.

Historically leaving people to manage their own infrastructure needs without assistance or technical help has had mixed results which is often dependent on their ability to pay. Given the Sustainable Development Goal 6 (Ensure availability and sustainable management of water and sanitation for all) ensuring private provision of water and sanitation infrastructure is adequate is important. Looking at new ways to help people with their own infrastructure provision will be important into the future.

Examples might be a bulk buying and installation scheme of water tanks, assessments for sceptic tank functionality, or energy production options analysis. This could be a national programme that is procured and delivered nationwide to reduce inefficiencies in running the schemes across several different providers.

Question 14 Does New Zealand need a Population Strategy that sets out a preferred population growth path, to reduce demand uncertainty and improve infrastructure planning?

Submission

A Population Strategy that was pitched at both a national and regional or territorial authority level would reduce rework for councils as part of their long-term plan, and demand forecasting work. This would often be a cost saving for councils as much of this work is done by consultants currently due to the infrequency that this data is generated. A preferred population growth path would help regions see where the sit in the broader picture as much of the focus is on metro areas, in particular Auckland.

Consistency in the population modelling will enable comparisons to easily be made across councils as currently not all councils use the same models for population and demand forecasting. Consistency in this information and regular updates would improve infrastructure planning. The current modelling is often heavily reliant on Census data to get enough granularity for demand modelling. More frequent and reliable data would improve responses to demand for infrastructure.

Question 15 What steps can be taken to improve collaboration with Māori through the process of planning, designing, and delivering infrastructure?

Submission

Create capacity - Permanent roles, secondments, funding for expertise.

Creating capacity begins with increasing the capability of existing capacity and providing mana to mana investment in the succession planning of iwi / Māori partners. This includes the use of mechanisms such as secondments of staff to councils, infrastructure groups and commissions for specific projects, resources, or rohe of interest to mana whenua. As well, the reciprocal placement of skilled and senior staff from Council's infrastructure groups and commission into whenua trusts or iwi trusts, to build the in-house capacity and support projects of importance to those groups through sharing capacity and mātauranga.

Beyond this, internships, and the development of competitive funds to fund the procurement of specific skillsets or suppliers to support project development, internal planning, and delivery of projects for iwi / Māori seeking to increase or improve the resilience of their communities and asset infrastructure will assist build capacity.

Adopt Co-Governance, joint decision making, and co-management models.

Council has a wastewater committee where key decisions, research and guidance is issued on the management, reporting of and planning for wastewater in Gisborne City is jointly done. Representation is split 50/50 with four elected members and four iwi members.

While this is a result of consent conditions, it is an effective and mana enhancing mechanism that could be easily be used as a model across other committees where infrastructure decisions on matters of importance are made, including regional transport.

We also have co-governance models through our local leadership body, and co-management through our voluntary joint management agreement.

The proposed Natural and Built Environments Act joint committees are a start in terms of a more defined role for Māori in infrastructure planning. Governance of the strategic plans under the Strategic Planning Act will also be important and should be a tripartite partnership between the Crown, local authorities, and Māori. The Randerson report highlights that the strategic role envisaged is quite different from what may have gone before in some communities where it can be limited to submitting on particular consents and/or plan changes.

It is important that Māori contribute not just to where infrastructure goes, but how it meets the needs of Māori communities and reflects te ao Māori. We need to go beyond the context of planning to include design and delivery, including social procurement opportunities and opportunities to reflect the histories and stories of mana whenua through infrastructure design. Opportunities include:

- Development of new, or improvements to existing papa kāinga and kaumatua housing including four waters and power supplies,
- increased connectivity and improved critical infrastructure for remote townships or villages, improvements to marae and marae networks across an iwi grouping,
- plan changes to support housing development in smaller townships, development of infrastructure to support economic development and tourism,
- funding and project design and management expertise for the delivery of alternative supply models for remote townships where connection to water, wastewater supplies is prohibited by distance.

Ownership and delivery

An example of ownership and delivery is the Tuaropakai Trust delivery of geothermal power, in the Mokai geothermal energy field, and the power is them delivered to the national grid at the Transpower Whakamaru substation. Sustainable management practices drive the careful delivery of this natural resource from the perspective of the beneficiaries of whenua Māori under the stewardship of Tuaropaki, which is an Ahu Whenua Trust established by the Māori Land Court. This is an example of an effective Māori owned and delivered infrastructure model where it is not iwi run and manages infrastructure situated on multiply owned Māori land.

Lessons from this and others like the Tuaropaki Trust, including the provision of support, linkages and guidance for other Ahu Whenua Trusts would be a welcome resource for those struggling with mentorship and business guidance needed, from a Te Ao Māori perspective.

Resourcing the change

Simply putting in place new governance structures will not be sufficient. Time, support, capability building initiatives and resourcing for all parties will be needed to ensure that these governance structures work effectively and are culturally appropriate (particularly given the complexities associated with working with multiple iwi and hapū). Further work should then be done to develop a plan for how local government can be supported to build its capability

and capacity to partner with Māori on the planning, design, and delivery of infrastructure projects. Similar capacity and capability planning should be undertaken with Māori communities too.

Question 16 What steps could be taken to unlock greater infrastructure investment by Māori?

Submission

Recommend the Infrastructure Commission consider who and what infrastructure investment by Māori means as it is not clear in the document.

'Māori' is a broad and encompassing term.

- Does the Commission mean mandated iwi entities? In which case, asking iwi to invest their settlement funds in infrastructure they do not own, manage, or have a legal responsibility to provide seems inappropriate.
- Does the Commission mean Māori organisations as in trusts or incorporations where the growth and management of wealth and assets is a key function? This would potentially be appropriate if the investment would then produce dividends and support the growth and resilience of those trusts and incorporations and be inappropriate if these were assets already rated for, or where fees, levies, development contributions or remissions already applied.
- If the Commission mean Māori as ratepayers, taxpayers, and communities of interest then the question is inappropriate.

Question 17 What actions should be taken to increase the participation and leadership of Māori across the infrastructure system?

Submission

Resource and engage mana whenua.

Increase (or in many cases, establish) infrastructure services for rural and coastal communities. For example, through the 3 waters reform process it has become very clear that Māori who whakapapa to these areas (irrespective of place of dwelling) would participate if there were levels of service on which to engage upon.

Culturally compliant infrastructure

Applying mātauranga Māori in the design of our infrastructure systems, for example:

- Separation of mortuary waste from our general wastewater systems
- No wastewater to moana / awa, land based treated water disposal only.

Pūrākau and oral evidence associated with potential sites of infrastructure to guide site suitability i.e. An area known for taniwha, oral records of flooding.

Question 18 For the 'Enabling Competitive Cities and Regions' Action Area and the Needs:

- What do you agree with?
- What disagree with?
- Are there any gaps?

Submission

Broadly we agree with 'Enabling Competitive Cities and Regions' being identified as one of the action areas and the needs identified that sit under it as outlined on page 43 of the consultation document. We have made comment below on some of the needs identified and our feedback for the Commission on what we believe needs to be addressed or considered when framing these needs and the suggested options under them. Further specific and targeted feedback is covered as appropriate under the relevant questions for this action area, in the absence of a relevant question any more specific information is also presented below.

Introduction of Need C6. Prepare infrastructure to respond to economic transformation.

The role of economic transformation and its impact on infrastructure is largely absent from the draft. Introducing a focus on it by adding a specific need under this action area would be appropriate. Councils already can easily identify examples where economic transformation and/or growth has impacted on infrastructure demand and use. For Tairāwhiti a key area that is forefront of transport discussions is forestry.

Tairāwhiti and forestry.

In Tairāwhiti, exotic forestry accounts for about 17% of land use compared to 8% nationally[11]. Tairāwhiti already has a significant amount of land converted to forestry (between 2014 and 2018 there was an increase in forestry land use of 17%)[12]. As of 1 April 2020, the net stocked area in the region is 155, 359ha, and the average age is 19.6years[13].

Exotic forests and the activities surrounding their harvest are a source of conflict in local communities, for example the impact on the quality of local roads due to heavy and continued use throughout a harvest. In addition, the region has experienced several severe adverse environmental outcomes because of harvest practices. The regional climate report undertaken by NIWA indicates that there will be more extreme weather events in the future and therefore an increase in environmental risk.

With historic and current government policies encouraging exotic forestry, the 'wall of wood' that will be harvested and transported on our roads will be a significant challenge for the transport industry. This investment priority will have an infrastructural echo both now and over the next 30-50 years. The effects on the roading network due to this increased use will vary across regions and interventions will likely be increased maintenance, road reversion to prioritise spending in other high priority areas, and significant changes needed to current road and intersection designs.

Forestry is an example of where we do not see any benefit to Council's balance sheet from increased GDP output from the region. There are no avenues for councils to manage the

[11] https://environment.govt.nz/publications/our-land-2021/
[12] https://www.gdc.govt.nz/environment/state-of-our-environment
[13] https://www.mpi.govt.nz/forestry/new-zealand-forests-forest-industry/forestry/new-zealands-forests-statistics/

projected increase in forestry trucks, councils like Gisborne District Council are already facing intense network pressure with the increase in forestry trucks and this will only worsen.

Alternatives to road transport for freight need to be investigated and invested in. We need to transition from lower efficiency to higher efficiency transport modes ahead of replacement technologies. Rail and short sea shipping should play a much bigger role in the future of freight, and more funding will be required to make these modes competitive. There needs to be incentives to create a domestic coastal shipping industry. Significant reinvestment in rail is needed, to make it the preferred long-distance freight option (particularly in the multi-modal and freight forwarding business).

These freight alternatives also provide opportunities for transporting people. For example, increased coastal shipping could provide transport opportunities for people and goods to small coastal settlements. Many of these settlements are a long way by road from main routes and under a disrupted climate it may become unsustainable to repeatedly restore roads that have repeat significant slip or wash-out events.

There is the opportunity to shift to a 'beyond road' model for these settlements – where they would need to be able to sustain their own energy supplies and water treatment, and transport may be a mix of coastal shipping, drone delivery and autonomous robotic terrain walkers.

The key challenge for this suggestion is that the existing port infrastructure, including access roads are low-lying which will be at risk from the effects of climate, sea level rise, increased stormy conditions and frequent inundation.

Additional consideration is needed to determine how to build resilience into a shift from road transport to sea and to ensure that expansion of the shipping ports and associated networks are strategic and well thought through and do not result in further degradation of sensitive coastal environments.

Need C5: Improve regional and international connections.

Digital and physical connectivity is key for competitiveness in regions as well as ensuring equity in participation. Ensuring business across the nation does not need to be based in metro areas to deliver on consumer expectations is important. Supporting infrastructure and mechanisms to enable more working from home regardless of the industry people work in will be an important part of making regions more attractive, particularly for younger demographics.

The decentralisation of location of the public service could also improve equity in access and accessibility for advocacy - resulting in wider demographics being represented in the decisions of central government.

Question 19 What cities or other areas might be appropriate for some form of congestion pricing and/or road tolling?

Submission

More can be done now to incorporate stronger pricing signals into the land transport system. Road pricing could be used to better reflect the true costs of the transport network (e.g., development, maintenance, environmental and health costs) and encourage a mode shift towards public and active transport shift. Road pricing could also help reduce affordability issues around the maintenance of our roads – particularly low volume/access roads that are vital for forestry and our economy but are expensive to maintain.

Legislative changes to enable the use of road pricing tools like congestion charge/cordon charge/parking pricing is an important action that has significant potential to support the proposed emissions budgets. This is one of the biggest practical steps that can be taken to reduce the emissions that come from transport.

A key pricing suggestion for roads that we receive regularly from ratepayers is the ability to levy heavy vehicle users of our roads due to the disproportionate wear and tear their usage creates. The current local government financing model cannot fully capture this appropriately.

Road pricing is a policy tool that will achieve other policy objectives in terms of health and safety, asset management and the other environmental impacts of road use (such as reducing road run off). A key outcome in the success of implementing road pricing would be the reduction in total emissions regardless of the time of day, not just in peak traffic times, due to mode shift. It could encourage a more sustainable urban form by encouraging intensification along transport routes, particularly around the key transport nodes (such as railway stations). A reduction in traffic volumes also serves to make active modes more attractive due to reduced concerns around mode conflict and the real and perceived safety risks associated with this.

Tolling of new and existing roads could be a useful intermediate step to full road pricing as both a revenue raising tool and a demand management tool. Moving to toll a network of strategic roads – for example, major urban arterials with few practicable alternatives or low volume/access roads that are required only for forestry harvest might be appropriate places to start. This would acclimatise people to the notion that they are paying to use the roads not just to build the physical infrastructure. The time involved in implementing road pricing of whatever form and ensuring credible alternatives are available may necessitate that a transitional measure such as increasing the level of fuel excise and road user charges may also need to be pursued.

Question 20 What is the best way to address potential equity impacts arising from congestion pricing?

Submission

Alternative models available from day one of pricing measures

Users need viable options and alternatives to paying the congestion charge from the start of the scheme to reduce equity impacts. People need ample warning about changes, time to prepare, and a clear understanding of what will happen so they can adjust.

Rethinking what public transport looks like may be key for example, on demand bus service rather than fixed routes. Micro-mobility hubs to integrate access to fixed transport routes. Park and ride could also be used for areas on the outskirts to reduce travel in the city limits but not disadvantage those that live rurally with little other options to get to the city for work, recreation or to access services.

Emphasis for any schemes could be placed on income, geographic displacement, or on neighbourhoods disproportionately affected by congestion pricing areas. It needs to be designed in a way that corrects systemic inequities in transport.

There are implementation examples internationally that we can learn from[14].

Incentivising carpooling through tariff bands is another potential solution for areas where design is not getting the outcomes desired.

Investment in alternative transport modes

To ensure that road pricing is successful in incentivising mode shift other factors need to be considered and progressed. The availability of convenient alternative modes of transport to private vehicles from 'day one' are a must-have to be successful in achieving transitions to other modes.

The administration and expenditure of road pricing revenues will become a key issue (centrally or locally). User acceptance of a scheme is critical, and the key to this is having a credible and publicly accepted plan for the use of the funds. Any funds acquired through road pricing need to be reinvested into development, operation, and maintenance of walking, cycling and low emissions public and shared transport infrastructure.

For road pricing to be a successful tool there will need to be a coordinated national approach and leadership to avoid duplication of efforts and resourcing to implement any road pricing. This will also reduce inconsistencies in application that may cause equity issues for travel throughout the country.

We need to be investing in high quality public transport and safe, connected, and attractive active mode networks. Providing safe environments for active transport when our built environment is designed for private vehicle use often causes conflict between user groups.

Reducing the need to travel

There should be greater focus on reducing the need to travel. In the hierarchy of interventions, reducing the need to travel should come before dealing with it in a more sustainable/lower emission way. Short term measures like changing the way/when/where/how we work need to be promoted and supported with technology. Spatial planning is key element of this approach to ensure our neighbourhood design enables avoidance and reduction of travel, particularly in private vehicles.

Question 21 Is a 10-year lapse period for infrastructure corridor designations long enough? Is there a case for extending it to 30 years consistent with spatial planning?

Submission

It needs to be consistent with the requirements in the new spatial planning framework. Inconsistency creates confusion and can potentially be a barrier for longer-term thinking and planning, making choices in the short term that are inconsistent with longer term aims and causing rework and wasted investment. Designations come with conditions -some of which will be out of date after 30 years. There needs to be a simplified review mechanism built into the designation's framework to enable updates without a new designation being triggered.

Consideration could be given to make provision for only leasehold land in those areas with housing to be removable to enable short term housing supply in areas where corridors are not

[14] https://www.enotrans.org/eno-resources/enocongestionpricing/

likely to be needed for some time. Though this potentially creates wasted spend in other infrastructure to support the housing if it is not self-sustaining.

We also need to change our approach to corridor planning key as well, having fewer single points of failure, and more provision and consideration for active and public transport.

Question 22 Should a multi-modal corridor protection fund be established? If so, what should the fund cover?

Submission

The fund should have an emphasis on facilitating corridors that integrate well into the existing network, have few or no single points of failure, and have a heavy emphasis on facilitating active ad public transport. These corridors should be integrated with other in-ground infrastructure to ensure we avoid situations we have with historic legacy infrastructure where sometimes key assets are on private property or underneath buildings.

Question 23 What infrastructure actions are required to achieve universal access to digital services?

Submission

Regular review and updates to the Digital Strategy are needed as a few years represents a different world in the digital space. There needs to be investment to ensure we keep up. Accompanying cyber security expertise and infrastructure is needed especially as we move to a more cloud-based operating environment.

Investment in actions to increase connectivity.

Further roll out of funded projects to improve the reach of existing, or introduce new, rural mobile towers to improve connectivity across New Zealand, particularly remote areas, black spots and rural or coastal communities.

Further roll out of fibre, to improve speeds and band width for those looking to move to their whenua, or rural area but want to continue to operate a small business or work remotely.

Social infrastructure – provide funding for local authorities to provide more publicly accessible Wi-Fi hotspots, free of charge for those that cannot afford to connect at home.

Question 24 For the 'Creating a Better System' Action Area and the Needs:

- What do you agree with?
- What do disagree with?
- Are there any gaps?

Submission

Broadly we agree with 'Creating a Better System' being identified as one of the action areas and the needs identified that sit under it as outlined on page 43 of the consultation document. We have made comment below on some of the needs identified and our feedback for the Commission on what we believe needs to be addressed or considered when framing these

needs and the suggested options under them. Further specific and targeted feedback is covered as appropriate under the relevant questions for this action area, in the absence of a relevant question any more specific information is also presented below.

Resourcing change

Resourcing the change process itself needs to be an integral part of any strategy. Funding and resourcing – both creating the new systems and structures needed, and the actual processes of change.

Need S3: Make better use of existing infrastructure.

Resourcing non-pricing mechanisms for behavioural shifts

A large proportion of the Commission's recommendations focus on the need for better (or more efficient) pricing in road use, water services and solid waste disposal. While we broadly support these recommendations, there are some recommendations might be some time from implementation and behavioural shifts need to happen as soon as possible in many areas. There are other tools available for encouraging behavioural shifts including regulation (e.g., carless days) and public education (e.g., impacts of smoking on health).

Behavioural insights are increasingly used in infrastructure management and service design. Core to this is about providing users with 'nudges' or hints and incentives towards the desired behaviour. An example is our Drainwise programme which includes a strong public education element on how consumers and their private property impact on our waters infrastructure and what they need to do to contribute to the community outcomes like eliminating the needs for untreated sewerage discharges in times of heavy rain due to stormwater infiltration in the wastewater network. The Commission should include progressing work on behavioural insights in their options for S3.

Need S7: Reduce costs and improve consenting.

To reduce first move disadvantage and improve ratepayer affordability of new technology across councils, a network of centres of excellence (different centres for different infrastructure) and national funding would be beneficial. The promotion of good work by the sector does not necessarily reduce financial and resourcing burdens across councils, rather the first mover does a lot of work that others benefit from. Emissions reduction and prevention should be a key focus for this area.

The Commission needs to look further than improving the speed at which consents are processed, and any 'improvements' from the perspective of enabling development cannot occur at cost to environment, place based tikanga, community values and the design of healthy connected communities (amenity is important). If Government make things 'simpler' then they need to accountable for the outcomes. For example, the NES for Telecommunication facilities removed the need for a consent for cell phone towers - resulting in very unhappy people in communities throughout the country who would then take out their anger and frustrations on local councils, using up staff time to respond to something over which we have no control.

Question 25 Does New Zealand have the right institutional settings for the provision of infrastructure?

Submission

We do not have the right settings for the provision of infrastructure. There are further opportunities to consolidate and specialise further across the three provider strands.

A potential way to retain regional preferences whilst consolidating some aspects to get economies of scale is by creating a network approach to facilities. For example, libraries across the country could be part of a shared service network. This would enable economies of scale in parts of operational areas whilst responding to local preferences.

Responding to growth

Population growth in Gisborne has occurred at a higher rate than forecast in our 2018-2028 LTP. This increased growth, combined with other challenges such as climate change, increased community expectation and ageing assets means we are faced with layers of expanding infrastructure networks, from land transport to three waters.

We do not have the capacity, to continue to fund this through our existing national structure, where the burden largely falls on councils to provide. As well, with regions having differently structured local authorities (Gisborne being a unitary) this presents added pressure on some.

For example, we must balance our regional and district functions across our rates, which is fed by a small rate payer base coupled with some areas of extreme deprivation. Recent central government investment through various funding pools has been key to the maintenance, renewal and replacement of critical assets and community facilities. However, this has not buffered us against the infrastructure needs and challenges of our rohe.

In our 2021-2031 LTP we are managing a backlog of deferred maintenance and renewals across networks like roading, but due to affordability constraints we have had to prioritise this expenditure to the most critical and at-risk areas to ensure we remain financially resilient.

Question 26 How can local and central government better coordinate themselves to manage, plan and implement infrastructure?

Submission

For context, local government has a single broad legislative mandate and responsibility for implementing around 40 pieces of legislation that are sector-specific (alongside several pieces of non-sector-specific legislation and other legislative instruments). We want to do more to deliver on the expectations of Government, mana whenua and our communities, but have concerns about the ability of our ratepayers to fund all the work needed to plan and deliver infrastructure and our ability to compete with others for funding.

The new spatial plans under the proposed Spatial Planning Act will be an ideal way to better coordinate infrastructure planning and delivery. This will enable coordinated longer-term views across providers. How implementation is managed will be key to ensuring continued coordination in managing, planning, and implementing infrastructure.

The three waters reform will provide learnings and examples on elements of reorganising the way we manage, plan, and implement infrastructure. The future of local government review also needs to consider the best structures for delivering responsive and effective infrastructure.

Cross-Party collaboration

We respect the importance of a variety of political views; however, responding to our infrastructure challenges and reducing our emissions needs to remain as apolitical as possible. Consistency in the strategic direction for long-term issues reduces the rework required for councils and reduce pressure on resourcing requirements. An Infrastructure Strategy that has cross-party support would be a beneficial outcome for this process.

Investment in local and central government collaboration

Investment in ensuring local government can work together alongside Government will be needed. Funding constraints and insufficient revenue to address anything but priority water, road, community service and place making responsibilities may become a barrier for participation for local government if not addressed.

We are already required to manage complex and competing tensions for example in the resource management space. Where national directions are being prepared, we encourage that such directions provide clarity on identifying, prioritising, and weighting such tensions to enable timely and cost-effective implementation. Examples include the allocation of freshwater water, highly productive land, indigenous biodiversity and achieving well-functioning urban environment outcomes sought through the NPS-Urban Development.

Investment in evidence to inform regional infrastructure decisions.

We need to fund collecting the data we need to achieve change to our infrastructure networks. For example, evidence of mode shift and environmental outcomes is often lacking from Council planning and funding Waka Kotahi bids as it is currently difficult or expensive to measure. Government guidance and assistance to resource the monitoring of non-monetary benefits (such as environmental, social, and cultural benefits) of infrastructure like transport mode shift would help reduce duplication of effort across local government to develop their own frameworks and monitoring systems.

Research and development of new technologies and methodology will be key to gaining further emissions reductions. Centralised research and development for alternative building materials and construction methods would be beneficial for all public infrastructure, as well as privately built infrastructure. Centralising this research and development would enable councils to focus their spending in other areas that they need to address, for example adaptation of coastal infrastructure. Additionally, to incentivise more expensive low carbon alternatives (such as new emulsions) subsidies could be provided, or taxes imposed on less desired materials and methods to try to 'even the playing field' from a consumer's price perspective.

Increasing capacity and capability

The delivery of infrastructure is impacted by the availability of a sufficiently skilled workforce in the short and longer-term, as was notably experienced during the rebuild phase in the recovery from the Canterbury Earthquakes. Councils have challenges in recruiting and retaining skilled staff, particularly regulatory and engineering staff. Taituarā are preparing a sector workforce strategy to address the current capability gaps, and better position the sector for the workforce needs of the future; however, this does not provide clarity on the needs of central government and/or the private sector. For example, what level of expertise would the Commission's recommended asset management agency require, and from where. There is an assumption that the creation of a small number of water entities will create greater strategic capacity but ignores that some capacity will still be required in local communities to ensure that community needs have a sufficiently skilled advocate. With the demands of Taumata Arowai as a regulator, it is not clear to us that demand for public health engineers will be any lower.

Elected members need an understanding of the core concepts of asset management (including levels of service and the asset lifecycle and its implications for costs), some knowledge of the relationship with accounting concepts such as depreciation, accrual vs cash accounting and the like. There is a wealth of resources and training opportunities available for local authorities, but they are not well taken up. The issue is that, understandably, there is a reluctance on the part of many elected members to travel. In part there is the personal inconvenience of leaving the community, but still more there is the scrutiny that

comes with disclosure of travel expenses. There may also be some understatement of the differences in governing a local authority and running a small business or farm. A greater understanding of the core concepts of asset management and financial governance is useful to all elected members, when exercising any governance duty, and to that extent should be a high priority for investment.

Question 27 What principles could be used to guide how infrastructure providers are structured, governed and regulated?

Submission

Principles to guide how infrastructure providers are structured, governed and regulated should include:

- Future-focused
- Focus on wellbeing framework.
- Community access to provider
- Equitable
- Environmental protection and enhancement ethos
- Responsive to Sustainable Development Goals
- Digital focus including the use of automation.
- Open data
- Transparency
- Scale is appropriate for the infrastructure.
- Performance - effective, efficient, low emissions
- Mātauranga Māori and tikanga
- OECD principles to use infrastructure to reduce poverty[15]
    - Enhance infrastructure's impact on poor people.
    - Improve management of infrastructure investment, to achieve sustainable outcomes.
    - Increase infrastructure financing and use all financial resources efficiently.

15 https://www.oecd-ilibrary.org/docserver/9789264024786-22-en.pdf?expires=1621312198&id=id&accname=guest&checksum=B2AAA3B83CF67FF28CD13ED848E05046

Question 28 What steps could local and central government take to make better use of existing funding and financing tools to enable the delivery of infrastructure?

Submission

Refer to Q5 re active transport investment and adjusting the FAR contribution ratio.

Question 29 Are existing infrastructure funding and financing arrangements suitable for responding to infrastructure provision challenges? If not, what options could be considered?

Submission

The current infrastructure funding and financing arrangements are not suitable for responding to infrastructure provision challenges. This gap will widen with further challenges with emissions reduction and climate change adaptation.

Land transport

The current land transport funding model has been developed around the preference of private vehicle as the main mode in NZ which has been the country's primary mode of transport for a long time. The model needs to be reviewed to determine the best way to fund the transition to, and management of, the future network needed to achieve emission reduction targets that will be required. Private vehicle use is ingrained into the way our built environments are designed and developed. This is an issue that will take time to resolve, and local intervention will need to be supported by Government – financially and with clear national direction and standards.

Existing funding mechanisms through Waka Kotahi are resulting in insufficient funds for the renewal and maintenance of our land transport network, and low quality, damaged and gradually less resilient state highways. As part of the future of transport funding we hope to see changes to funding schemes and/or criterion. These issues are particularly exacerbated by heavy freight volumes on the roads, reducing heavy vehicles on the roads would also go some way to reducing expenditure requirements.

There needs to be improvement to funding of public transport in the regions. To achieve mode-shift substantial investment is needed in the infrastructure as well as working on promoting behaviour changes. With low patronage and user revenue, councils struggle to fund adequate public transport options that support fewer private vehicles on roads, deliver on connection for those without transport to essential services, and service our most vulnerable communities and demographics.

Local government finance

Tairāwhiti has some challenges around income and affordability:

a. Employment has grown over the last five years, but the average household income remains amongst the lowest in New Zealand. The Tairāwhiti average household income is $82,800 compared with $104,400 for all New Zealand.

b. Fewer people have above average incomes - 23.6% of people in Tairāwhiti have an annual income more than $50,000, compared with 31.6% of people in New Zealand.

c. Rates in most of the Gisborne urban area exceed the 5% threshold of affordability[3]. The eight areas where the 5% threshold is exceeded contain about 40% of all rateable units in Tairāwhiti (see Figure 1 below).

We also have a younger population than most other regions, and the over 65 age group is growing. These factors influence the ability of our community to pay more for their rates and our ability to match the level of investment more affluent councils can make. Even relatively 'modest' changes to forecast expenditure can have a significant impact on rates. Rating to fund $600,000 of new operating expenditure is equivalent to a 1% rates increase. For capital expenditure $8million in new expenditure is equivalent to a 1% rates increase.

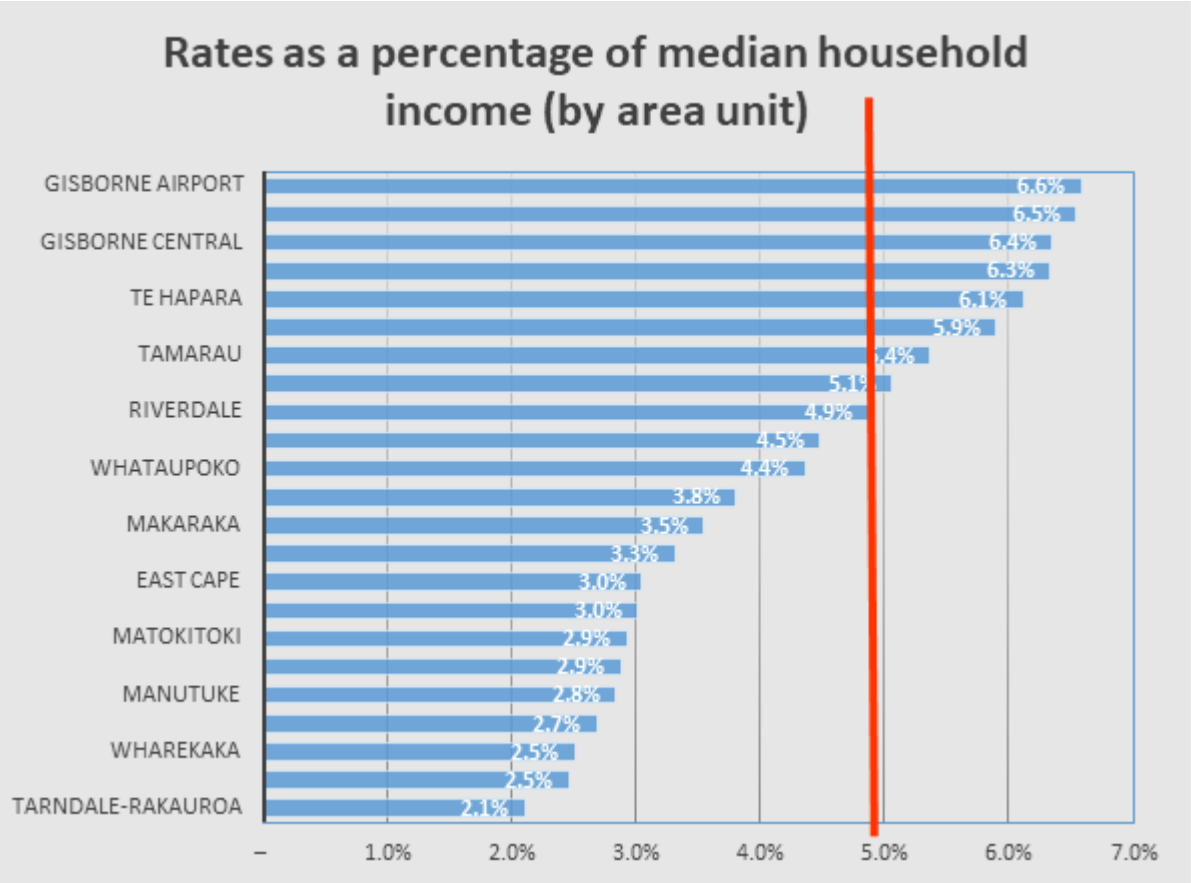

Figure 1 2018/19 median rates per area as a percentage of the median household income.

The system of local government needs to be sustainable. Critical decisions will need to be made about the long-term financial sustainability of the local government system and the funding models applying to it following the outcome of the Productivity Commission review (and other historic reviews). The drivers for rates increases are complex. They reflect changes in service levels, the scope of council activities, past spending decisions, and future investment decisions.

The local government rating system does not recognise value brought through GDP contribution, visitors, value change, and damage by certain land-use to non-built infrastructure and environment. These factors have impacts on the region's infrastructure that are difficult to resolve under the current rating model. Equitable funding needs to include an element of funding for national good. The Future for Local Government Inquiry provides an opportunity for a robust debate as to what constitutes national good, including criteria and

methodologies for determining what is "national good" and a strategy for investment in national good infrastructure and services.

A funding issue for community infrastructure assets is how tourists (domestic and international) contribute to the costs of maintenance, renewal and establishment of assets that support recreation by a wide range of users. Many tourist centres require 'big city' amenity from a much smaller rating base - visitor needs are one of the key drivers of amenity and standards in the tourist destinations, but also in communities along some of the key tourism corridors such as the East Cape in Tairāwhiti. An example of this is the number of public conveniences per capita in our region being high both given our geographic spread but also due to the demand for these facilities by visitors to our communities.

Our visitor numbers are not as high as other areas of New Zealand; however, affordability for these types of assets is an issue and may inhibit the future development of the tourism industry. Overall, our visitor-to-resident ratio is relatively low; however, we do have some areas in peak periods where the visitor-to-resident ratio is very high. The tourist peak period pushes infrastructure and services beyond the capacity needed only for residents across our region.

As per the Productivity Commission findings, progressing improvement to central government funding flows to councils for tourism-related amenities and services using a transparent allocation formula would alleviate some of the pressure[16]. This would provide certainty in funding and facilitate planning and managing tourism growth effectively. A formula method would enable funding to be distributed in a more systematic, ongoing, predictable, and fair way.

National funding for climate change adaptation is vital for supporting future-proof funding and financing system. There is a strong economic case to support some degree of pre-funding the costs of adaptation. The principle that the exacerbator pays suggests that those responsible for harm or damage (in this case the emission of gases that have created climate change) should contribute towards the cost of adaptation. With the right design, the mechanism for contribution could be used to signal the cost of activities that gave rise to climate change or avoid locating in areas at risk etc. Further tax on automotive energy and/or other fossil fuel use would be one example. Funds raised in this way could then be invested for future use once the adaptation expense begins – like how the current New Zealand Superannuation Fund operates.

There are several infrastructure projects that would enable houses to be built in existing urban areas, but we struggle to get the funds we need to do them. There are not enough development contributions and increasing these is seen as a barrier to development. Affordable and social housing developments need infrastructure but adding fees to these types of developments adds costs. There is merit in a central government agency taking responsibility for an Infrastructure Contributions Plan system, including a focus on how we build infrastructure for affordable and social housing. The current situation of individual councils Development Contributions Plans is not working for our region.

Equitable funding and infrastructure

Regardless of what needs are identified equitable funding and financing delivery of infrastructure is crucial. This is not well addressed in the draft.

[16] https://www.productivity.govt.nz/inquiries/local-government-funding-and-financing/

Equity in provision of infrastructure is about having some base-level of infrastructure need delivered regardless of location, which may mean significant funding injections being required to ensure the base-level of infrastructure is available in some areas.

Historically equity in funding has been most often translated and implemented as a per population basis. Ideally investment would be based on the value of the infrastructure to community's and people's wellbeing (cultural, economic, social, environmental). In the absence of a good measurement model to base this on the consideration of the geographic size of a Council and their quantity and quality of assets could be beneficial to reduce the inequality that is exacerbated by per population funding models that favour larger populations.

Question 30 Should local authorities be required to fund depreciation as part of maintaining balanced budgets on a forecast basis?

Submission

Depreciation will become an important consideration as part of a managed retreat framework.

If depreciation continues to be a part of accounting standards, and requirement under the LGA then the principles and mechanisms should be reviewed. For funding depreciation this should only be required/expected of local government when the following have been considered:

- certainty that it will be replaced in the future.
- who funded the infrastructure to be commissioned at the time of purchase; and,
- who is likely to be the future funder of the replacement.

For some infrastructure depreciation phasing is needed for it to be affordable due to significant and material assets being constructed. For these large purchases, affordability of depreciation and ways of making it affordable should be considered.

Question 31 What options are there to better manage and utilise existing infrastructure assets?

Submission

Throughout this document we have made suggestions under applicable questions. In addition to those suggestions are the following:

Managing and utilising existing infrastructure in the face of climate change

Funding to support local government management of existing infrastructure to improve resilience of our asset groups and services, so that the region is better able to withstand and recover from major shocks and stresses as we adapt to climate change.

This could include actual physical works, or funds to support research and the development of options for mitigation and adaptation with the view to manage and utilise existing infrastructure, indicate where new or alternative infrastructure is required, in response to climate impacts likely to felt region by region.

This could assist across infrastructure network types to inform decisions such as siting, adaptation methods and the measure to which they be applied, where infrastructure can be changed or need to be moved as part of managed retreat et al.

This would be crucial to local government deliberations and decisions made during long term planning every three years.

Data

Good quality infrastructure planning relies on good quality asset knowledge. We need to understand how our assets perform, understand the lifecycle costs and the risks associated with failure. Uncertainty about data for an asset can impact on our financial sustainability.

Support and guidance on how to access and accrue better data to support local government planning would be incredibly useful, even sharing similar data sets and performance information across councils / local authorities, so where our data sets are incomplete, we can use similar real-life exemplars to support decision making and planning for our infrastructure assets.

There are already areas for improvement in how we use our existing infrastructure, cost is an important factor in why these have not been addressed. An example is requiring water collection and storage onsite to supplement town supply. This would reduce pressure of the town supply and could provide water for non-drinking water use requirements like laundry, watering gardens, and various cleaning tasks that take place outside the home such as cars, decking.

Question 32 Are there benefits in centralising central government asset management functions? If so, which areas and organisations should this apply to?

No comment.

Question 33 What could be done to improve the procurement and delivery of infrastructure projects?

Submission

Local government procurement

Procurement is an important tool used by councils to achieve their objectives for a specified set of work. Procurement is often not a specialist separate role but part of asset managers role on top of other priorities. Centralised procurement support for the public sector should be developed and be made available to local government as well.

Prior, and in addition to, the establishment of a major projects' leadership academy is the need to support or establish improved procurement processes and timeframes within local government, as deliverers and operators of major public regional infrastructure and community facilities. The office of the Auditor General noted in their report, *Matters arising from our audits of the 2018-28 long-term plans*[17], that some:

... councils are responding to unprecedented levels of growth. All councils are responding to increasing requirements for levels of service, including as a result of regulatory changes. They also need to reinvest in their existing infrastructure, often at higher levels than in the past to address historical underinvestment and improve services to meet community expectations.

[17] https://oag.parliament.nz/2019/ltps

We look at the Commission's capacity and capability in procurement, and ask how the Commission might be able to support us to:

- Ensure consistency in approach to low emissions and other procurement criteria that are needed to transition to a low emissions future. This would ensure that expectations of contractors are consistent, and procurement is supported with research/tools for monitoring emissions.
- Maintain steady and competitive supplier bids for projects, including those below $50m in value.
- Ensure the 'pipeline' of work includes lower value infrastructure projects of $5M+.
- Improve our procurement processes (see the first bullet point) beyond the provision of Government Procurement Rules.
- Provide measures to enable better procurement and supply of materials needed for project delivery where materials can only be sourced from abroad.

Question 34 Do you see merit in having a central government agency procure and deliver infrastructure projects? If so, which types of projects should it cover?

No comment.

Question 35 What could be done to improve the productivity of the construction sector and reduce the cost of delivering infrastructure?

Submission

Drivers of cost

The Capital Goods Price Index – Civil Construction (CGPI) has been increasing at a faster rate than the Consumer's Price Index (CPI) since around 2003. In some years, the rate of increase in the CGPI is more than double the rate of increase in the CPI. The factors underpinning movements in construction costs are many and varied. The strategy should include an examination of the drivers of cost across the entire infrastructure spectrum[18].

Some of the commodities that civil construction relies upon are traded on international factor markets (steel and bitumen are good examples). Local authorities and other infrastructure providers in this country have very little ability to influence prices set internationally. Almost all capital expenditure and most maintenance work is market-tested in some way – be it through the pricing procedures required by NZTA or through a local authority's own procurement processes. The options open to local authorities and other providers are to reduce their consumption of these materials or to investigate alternative design and procurement options.

A robust understanding of the factors underpinning movements in construction prices is critical to a national level infrastructure strategy. This is an immediate and urgent priority that could inform the need for currently unidentified options. For example, this might identify whether the

[18] Noting that some work has been done for specific infrastructure areas.

way we procure infrastructure impacts on costs, and from that whether recommendations around procurement should sit in the priorities.

Key infrastructure

Some options to consider are:

- The role of night works for example, shutting sections of road for periods in the evening to reseal instead of doing it in pieces during the day with higher traffic volumes.
- Increased use of 3D printing of materials and the potential application of these technology to infrastructure.
- Increased automation and technology. This could also reduce safety risks associated with manual processes as well as increasing productivity.

Performance

Across several productivity and competition measures, Construction Services and Heavy & Civil, compare unfavourably to other sub-sectors. The key sectors that stand out negatively are:

- structural steel erection
- painting and decoration
- tiling and carpeting
- bricklaying carpentry
- plastering and ceiling.

House construction performance is middle of the road and non-residential building typically appears at the more favourable end of most performance indicators[19].

Residential construction

There are multiple issues that require industry wide support and resource.

- *Scalability:* smaller and localised construction firms may be hindered in productivity by the cost associated with their suppliers, where they struggle to access materials at competitive prices. This impacts residential builds, where the development of individual homes or papa kāinga in the regions are slowed by the high combined cost of land and building for the whanau or homeowner.
- *Demand for large scale developments, prefab or kitset homes, and nationwide building brands:* The cost from lack of scalability then results on demand for new developments and subdivisions, waiting lists for suppliers of residential prefab or kitsets, and higher uptake of nationwide building firms where scalability is not an issue and pricing is more guaranteed. This means less use of smaller residential construction firms, and the waitlists and demand might be perceived as 'slow' or 'less productive' residential construction that is 'failing' to meet market demand.
- *Turnover:* Interestingly the construction industry performs better when a turnover of staff is experienced, as the leavers inevitably start up their own or join new construction firms. During this 'new' period of establishing themselves individuals and new firms are more productive. Continuers, or stayers, tend to be less productive and are outperformed by fledgling firms. If an increase in productivity is the aim, support for the establishment, or further research into the true performance (and longevity) of fledgeling firms is needed, to understand 'the dynamic process by which employees interact with firms, move

[19] 'Construction and Productivity' NZIER, 2013 nzier_report_to_productivity_partnership.pdf

between firms, and start new firms [20], as part of solving the sectors productivity challenge.

- *Competition and conduct:* There are signs that competition and conduct may be an issue. Geographically small and remote regions like Gisborne appear highly concentrated. As a rule of thumb, there is a causal relationship between competition and a firm level productivity. This is because competition leads to reallocation of resources from lower to higher productivity firms (partially discussed under scalability). As well, with limited access to different suppliers and a reliance on what firms can get to the region, issues of conduct in the supply chain can affect productivity in smaller regions [21], and result in peaks and troughs in residential construction.

Question 36 What components of the infrastructure system could have been improved to deliver effective stimulus spending during the Covid-19 pandemic?

Submission

A more effective way to distribute stimulus funding would have been a regional fund (allocated using a formula) rather than bidding. A lot of hours were put into bids that pulled asset managers and other staff away from COVID-19 response work as well as delivery of essential services. This mechanism would have increased the spread of spending with regional decision-making on priority projects. Many regions already have or developed these mechanisms to work on recovery planning and other regional priorities.

These existing plans and groups already have a list of actions that have been determined by a region to be of importance. In Tairāwhiti an existing plan was the Tairāwhiti Economic Action Plan and through COVID-19 recovery the Rau Tipu Rau Ora plan was created that drew together existing and new actions.

Procurement/project delivery detail

There has been a lack of materials and/or specialist technical capacity to deliver these large projects that were all brought forward and expected to be delivered in a short period of time. Supply chain issues over COVID-19 were not alleviated by adding in additional capital works.

Procurement was an area where assistance would have alleviated workloads. Support and guidance for streamlined procurement processes as part of delivering shovel ready projects.

[20] Report ER8 Productivity Distribution and Drivers of Productivity in the Construction Industry, Chaffe et al, 2016 BRANZ-Report-execsummary-final.pdf (motu.nz)
[21] nzier_report_to_productivity_partnership.pdf

Relevant Reference Material

Rethinking Plastics in Aotearoa. Office of the Prime Minister's Chief Science Advisor.

The Truth about Plastic Recycling in Aotearoa New Zealand in 2020. WasteMINZ Territorial Authorities' Officers Forum.

Climate change projections and impacts for Tairāwhiti and Hawke's Bay. NIWA.

Draft Regional Land Transport Plan. Gisborne District Council.

Draft Regional Public Transport Plan. Gisborne District Council.

Food Waste Reduction Roadmap. NZ Food Waste Champions.

Navigating Critical 21st Century Transitions. Taituarā.

Congestion Pricing in The United States. ENO Center for Transportation.

Local government funding and financing. Productivity Commission.

Taituarā submissions to Productivity Commission:

- February 2019
- August 2019, Appendix by BERL

Local Government New Zealand submissions to Productivity Commission:

- February 2019
- September 2019

Construction productivity, An evidence base for research and policy issues. NZIER

Tairāwhiti Economic Action Plan.

Rau Tipu Rau Ora - Covid-19 Recovery Plan.