NZ TRANSPORT AGENCY
WAKA KOTAHI

www.nzta.govt.nz

44 Bowen Street
Private Bag 6995
Wellington 6141
New Zealand
T 64 4 894 5400
F 64 4 894 6100
www.nzta.govt.nz

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[redacted]

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Dear [redacted]

Thank you for the opportunity to provide feedback on the Discussion Document on Developing an Enduring National Infrastructure Plan (NIP).

Please find New Zealand Transport Agency Waka Kotahi (NZTA) comments below. We would welcome working with Te Waihanga collaboratively in developing the NIP, especially in relation to the land transport sector. Various teams are already beginning to collaborate with Te Waihanga and we look forward to developing shared evidence and insights to inform the development of the NIP.

Overall support for the general approach

NZTA strongly supports the development of a 30-year NIP. Our statutory role and functions, as defined by the Land Transport Management Act 2003 (LTMA), require us to "contribute to an effective, efficient, and safe land transport system in the public interest". A long-term approach, with a holistic consideration of future needs, is critical to inform good decision-making that best meets this statutory function over time.

Development of the NIP also supports the direction of the Government Policy Statement on land transport 2024 (GPS), in which the Government clearly states the need to take a longer-term approach to planning and investing in the land transport system. System reforms signalled in the GPS, such as the shift to 10-year investment planning and prioritisation, will benefit significantly from the NIP. The NIP will have an important role to play in helping the sector navigate potential tensions between shorter and longer-term priorities when making decisions.

We acknowledge that the Minister for Infrastructure has asked Te Waihanga to develop a NIP outlining New Zealand's infrastructure needs over the next 30 years. In addition to that time horizon, we consider that it would be useful to develop insights on – and prepare for – the next 50-100 years. This is due to the long lifespan of infrastructure and the time horizon of significant influences on it, such as the impacts of climate change.

Aligning infrastructure sectors

The NIP provides an opportunity to integrate across the various infrastructure sectors such as housing, transport, energy, and three waters to present a system view. This would help to maximise the benefits and opportunities of achieving multiple outcomes whilst optimising the costs and achieving value for money including associated environmental and social aspects of infrastructure. It should

recognise that the most critical challenges are at the intersections of these areas, and the future funding structures.

Using the transport system as an example, historically investment has been guided and framed by the Treasury framework, the Ministry of Transport's Transport Outcomes Framework, the GPS of the day and the Minister's Statement of Expectation. What doesn't exist is coordination and consistency across the interdependent sectors in relation to this for example housing has a GPS to focus investment but not an outcome framework.

It would be useful to establish a system of integrated and interdependent frameworks addressing for example transport, land-use, housing, energy & resources, and environmental outcomes. This integration and overlap is where the NIP can assist, including with funding coordination (and revenue sourcing), delivery and to provide consistency and a focus for each area. This should lead to better decisions by ensuring a long term co-ordinated (across sectors, local and central government) view in the NIP with associated long term funding plans, long term land use plan provisions and making the plan politically agnostic, along with meaningful public reporting and monitoring of the key drivers and progress indicators.

Balancing competing investment needs across multiple sectors, when there is not enough money to build everything, could be managed through a transparent multicriteria decision tool based around the Well Beings, re-assessed on an annual or 3 yearly basis.

Infrastructure pipeline

The entire NIP could be conceptualised around the various attributes of a successful infrastructure pipeline: a pipeline enabled planning, resourcing, revenue and budgeting, scheduling, scoping and management multi-sector coordinating model.

It would also be useful to integrate the pipeline across new infrastructure, operations, renewals, maintenance, and divestment or revocation. There is also an opportunity to consider in the pipeline what is tactical, temporary, staged or permanent/urban shaping.

This conceptualising of the NIP around the Infrastructure Pipeline would allow one to see the connections (system view) between the different infrastructure and sectors, as well as take a spatial approach across NZ (e.g. all transport and power infrastructure together). It should better enable the use of the same planning and base assumptions across the system where it makes sense.

Nature as infrastructure

The NIP should explore nature as infrastructure, for example: integrated catchment management, green infrastructure and nature-based solutions. The concept of 'nature as infrastructure' and nature-based solutions may assist with bringing a te ao Māori perspective to strengthen the NIP's approach to long-term infrastructure planning. We also see a need to include these concepts to address outcomes at an infrastructure scale and achieve value for money.

Managing natural hazard risk

There is a need to more explicitly consider natural hazard (including climate change) risks in needs assessments, scoping, provision, and operation/maintenance of infrastructure, including in terms of a consistent framework of risk tolerance. Additional content and direction about Managed Retreat, for

example, and other approaches dealing with climate adaptation is needed (avoid, protect, accommodate, retreat), as well as integration with other policy and strategy documents such as the National Adaptation Plan.

The NIP could also be up-front about what happens when the alpine fault goes (and whether NZ has financial strength to respond). This would include integrating resilience of (specified) critical infrastructure across systems (e.g. linking with resilience of communities, accepting reduced level of service for some assets, and potential for timely/coordinated approach for relocation of assets/retreat). It could present a more agile approach to planning for adaptation with funding earmarked over longer timeframes (potentially available based on certain triggers).

Better recognition of resource pressures would also be useful (e.g. due to supply chain disruption, or scarcity, needing to pivot to other types of resources, or being more intentional about re-use of what we have already).

The NIP could consider whether there is merit in any consenting, approval or incentivising processes for the development and delivery of critical infrastructure requiring an appropriate risk management assessment and plan to be undertaken. This should follow appropriate International Standards for risk management, including ISO 14090/14091. The risk assessment could include how the delivery and operation related risks consider community impacts, show decision-making under deep uncertainty, are comprehensive, are delivered in a collaborative manner and demonstrate a proactive approach. Climate change adaptation frameworks which address long term risk and a changing riskscape, such as APAR (promoted in the National Adaptation Plan) could be considered in appropriate circumstances.

More work is needed to have a much better idea of future costs (distributions) and investment requirements related to risks from natural hazards, as well as ways to establish and work with risk tolerance of the communities and infrastructure providers.

Emphasising making better use of existing infrastructure

Given the affordability challenges for funding new infrastructure, we suggest making the most of existing infrastructure capacity should be a strong emphasis of the NIP. This is noted to some extent in the discussion document – especially through mention of pricing. We suggest the NIP expands this to also consider things like:

- How growth could be better incentivised in areas with more infrastructure capacity and/or lower infrastructure costs.
- The importance of changing the use of infrastructure depending on time of day to meet different demands.
- Opportunities for technology to optimise existing infrastructure.
- The importance of small-scale agile improvements that can delay the need for major improvements.

Capturing the full breadth of infrastructure investment

In the transport sector, large standalone initiatives are often high profile and influence perceived understandings of investment needs. However, smaller scale initiatives or programmes can be very agile, efficient and effective ways of addressing problems and achieving outcomes.

These kind of investment programmes are likely to be a key focus in addressing resilience and climate change adaptation needs, as well as to better support growth and urban development. They are also often a critical dependency to ensure value from large-scale initiatives can be fully realised. We suggest:

- Acknowledging that it is useful to consider in addition to “grey” infrastructure: the related and important roles of digital or virtual infrastructure, soft infrastructure, and the natural environment (as per our nature as infrastructure comment above).
- Incorporating the potential impacts of key drivers for future change on the nature of infrastructure required in future into the principles/approach for long-term infrastructure planning such as adopting a dynamic adaptive pathways approach, given past and potential future climate and technological changes and associated uncertainty. For example, what are the approaches and underlying network investments required to facilitate future transport/information/communications technologies.
- Acknowledging that infrastructure networks are part of a broader system that also includes investment in services, users, institutions/frameworks and external influences; adopting a systems thinking approach will be important. Taking a holistic approach to infrastructure investment by looking across all infrastructure development opportunities and making observations on interdependencies, timing and deliverability within and between different infrastructure sectors.
- Acknowledging the cost of new investment on future maintenance and operations needs.

Right-sizing and right-timing investment

The NIP should provide guidance and direction about how to better right-size and right-time investment. Existing processes and tools have sometimes struggled to inform good decision-making on these issues. Better guidance about how to select the right scale of investment (e.g. delivering the most benefit while still having a BCR>1, or at the point of diminishing returns) would be helpful. Guidance about how to determine an affordable level of service would also be very useful. This is especially relevant in relation to adaptation and resilience risks on lower-use parts of the transport network where major investment struggles to deliver value for money.

In terms of timing, guidance around the following matters would be helpful:

- Where lead infrastructure or ‘following infrastructure’ are appropriate. There is a risk of stranded infrastructure resulting from locking in projects years in advance and building projects in the wrong places at the wrong times. This could be minimised by adopting an approach such as “decide and provide” or implementing recommendation 16 of the Infrastructure Strategy (Reduce costs by optimising infrastructure corridors) to define, plan and invest in lead infrastructure to guide growth/development in the most efficient locations.
- The timing and sequencing of cross infrastructure investment. This could be acknowledged, through the encouragement of stronger collaboration of investment (people, skills and funding) across infrastructure sectors and between local and central government.

END