

2 July 2021

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Christchurch City Council submission on He Tūāpapa ki te Ora Infrastructure for a Better Future: Aotearoa New Zealand Infrastructure Strategy Consultation Document

Introduction

1. Christchurch City Council (the Council) thanks the NZ Infrastructure Commission for the opportunity to provide comment on *He Tūāpapa ki te Ora Infrastructure for a Better Future*.
2. The Council is supportive of the development of a national 30-year infrastructure strategy. We consider that a number of the infrastructure issues at the forefront of our infrastructure planning are also national issues, and national guidance and direction are needed to address these complex areas.
3. The national infrastructure strategy will sit within a wider context of major government-led reform and policy change. The provision of infrastructure will be central to developments occurring in the areas of resource management, three waters, local government, and urban development. It is integral to how communities adapt to the impacts of climate change, and how we work towards emissions reduction and make changes to how we travel and operate public transport.
4. Infrastructure on its own will not bring about desired change. Infrastructure provision must be considered alongside service provision as part of an integrated approach to policy, planning and funding. Public transport is an example where infrastructure will only be truly fit for purpose if the policies for public transport are aligned with operating models. A holistic treatment of infrastructure will also consider its role in changing behaviours – the way in which we build and operate infrastructure will affect how it is used.
5. The Council is largely comfortable with the proposed priorities for the national infrastructure strategy. In relation to institutional and governance reform, while we support better coordination between local and central government, we think it important to highlight that one asset ownership/operating/delivery model is unlikely to work for all players in the system. What is fit for purpose for large metropolitan cities may not be the best fit for smaller communities. This is discussed further on in this submission.

6. This letter provides answers to specific questions and comments on identified action areas, needs and options, as well as providing more general comments, where the Council has relevant input. We have not answered every question, only those where the Council has specific comment.
7. The Council has also contributed to and supports the separate submission by the Greater Christchurch Partnership.

General comments

8. The Council considers that *He Tūāpapa ki te Ora Infrastructure for a Better Future* is a good start to drafting a national 30-year infrastructure strategy. It deals with the major challenges our infrastructure is facing and makes valid recommendations regarding how we should go about tackling these challenges, at a national and local level.
9. The Council is concerned that the consultation document overlooks the significance of the environment in which infrastructure operates. For example, giving effect to Te Mana o Te Wai should have a significant say in how we plan and manage infrastructure, yet it is not mentioned. This is a serious omission and there should be significant guidance on this matter.
10. The document could better link to the 2020 Discussion Document *Infrastructure Under One Roof*, which clearly sets out the intended scope of the infrastructure strategy, and provides a description of exactly what the Commission considers is covered by the term infrastructure: ‘a system of inter-connected physical structures that employ capital to provide shared services to enhance wellbeing’.
11. This definition places wellbeing at the core of infrastructure services, which resonates with the purpose of local government to uphold the wellbeing (social, economic, environmental, and cultural) of our communities. However, much of the social infrastructure provided by local government has been omitted (parks, libraries, and recreational facilities). This infrastructure is crucial to maintaining wellbeing and should therefore be included within this framework.
12. The long-term trends and challenges identified in the infrastructure strategy stop short of setting out the need to anticipate significant disruption caused by natural hazards. This could be addressed by using stronger risk language and identifying the risks that we need to respond to by building our resilience. New Zealand has faced significant challenges in the last decade particularly relating to earthquakes and flooding. Being explicit about the opportunity to embed the lessons from those events, so that nationally we can fully address underlying issues and weaknesses, would improve the overall narrative of the strategy. The fragility of some towns and cities’ infrastructure networks results in ongoing disruption long after the shaking has stopped and the flood waters have receded.
13. We need to build and maintain our infrastructure in ways that withstand disruption and, crucially, avoid loss of life. Our buildings especially (both new and existing) need be fit for purpose and resilient, come what may.
14. The Council is concerned about the coordination across the various central government policies and reviews (outlined in the Introduction to this submission). It is unclear how the policies align and support each other, and in some cases, they may conflict with each other. For example, the National Policy Statement on Urban Development’s enablement of out of

sequence development conflicts with the need to make better use of infrastructure within budgetary constraints, and undermines the ability to protect versatile soils and biodiversity and provide a coherent urban form that can support and is enabled by active and public transport. When policies are developed without due consideration of their impact on other policies, it can be difficult to achieve desired outcomes. Integration of relevant policies to achieve holistic outcomes is often left to local councils without sufficient national guidance.

Vision for 2050

Q1. What are your views on the proposed 2050 infrastructure vision for New Zealand?

15. Infrastructure Vision 2050: The Council suggests the following amendments (in bold) to the overarching vision statement: **Resilient** Infrastructure lays the foundation for the people, places and businesses of Aotearoa New Zealand to thrive **sustainably** for generations.

16. The Council largely supports the proposed Vision for 2050, noting that good infrastructure planning and management will be crucial to achieving this vision – as will innovation and different ways of working to achieve desired outcomes. Achieving the vision will also require good integration of infrastructure planning across the infrastructure system.

17. We suggest that the first whakataukī used in the vision is more appropriately cited in full. The extract quoted is from a wider whakataukī that the Council has used in its Resilience Plan¹, and has a more specific meaning. It is clear from the whakataukī as a whole that people are not divorced from their environment, and it is only when our most vulnerable are surrounded by their whanau that they will grow:

“Hutia te rito o te harakeke
Kei whea to kōmako e kō?
Kī mai ki ahau
He aha te mea nui o te Ao?
Maku e kī atu,
he tāngata, he tāngata, he tāngata...”

If the heart of the harakeke was removed,
where would the bellbird sing?
If I was asked what was the most important thing in the world
I would be compelled to reply,
it is people, it is people, it is people

18. The Council suggests that ‘sustainable’ is added to the *Access to education, employment, knowledge and recreation* point. This is a key principle in line with wellbeing and emissions goals and targets. We also suggest that *Safe and healthy communities, iwi, hapu and whanau* should contain the word ‘connected’.

19. While the Council supports the overall aims and vision of the consultation document, we note that our immediate imperatives are our deteriorating networks. Our focus is on keeping networks operational and returning them to adequate condition and performance levels. This

¹ <https://www.greaterchristchurch.org.nz/assets/Documents/greaterchristchurch/Resilient/Resilient-Greater-Christchurch-Plan.pdf>

is particularly the case for our three waters infrastructure, which is facing both an approaching bow wave of renewals and a backlog of overdue renewals.

20. We emphasise the need to focus on the resilience of our existing infrastructure networks and buildings, to ensure that they remain fit for purpose throughout its lifespan, and resilient to future stresses and shocks.
21. The Council is seeking clear direction within the infrastructure strategy on desired outcomes from climate change and coastal hazard adaptation strategies, to guide decision making for infrastructure in areas that are affected by climate change impacts such as sea level rise. This includes direction as to funding sources for climate adaptation. This will help us to ensure that we achieve the best possible outcomes for our affected communities.

Outcomes and principles

Q2. What are your views on the decision-making principles we've chosen? Are there others that should be included?

22. The Council supports the overall outcomes and the focus on the wellbeing of people. Resilience and sustainability need to be added to the objectives 'efficient, equitable and affordable' (noting the narrow definition of efficient). We have put risk and resilience (including climate resilience) at the heart of our Long Term Plan's 30 year Infrastructure Strategy, and would welcome this being reflected at national level.
23. Careful consideration is needed as to what is meant by value for money infrastructure decisions. It is important to recognise the challenges in defining value with regard to who bears the cost versus who receives the benefit (equity), including over time.
24. We need to ensure that infrastructure funding decisions deliver equitable outcomes for the wellbeing of all people and communities. This includes people with disabilities. The consultation document lacks any discussion about infrastructure's role in ensuring access for people with disabilities, and the Council considers this to be a major oversight. Incorporating universal design principles into infrastructure design should be promoted through the strategy.
25. Affordability considerations must include whole-of-life costs and not just investment costs. For different investment decisions, a cost-benefit assessment of economic, environmental and social considerations should be promoted.
26. We support taking an options approach to decision making, and particularly a focus on non-built alternatives to physical infrastructure. This is particularly the case in light of the ecological impacts of infrastructure and the need to enhance, rather than harm, our natural environment and ecosystems.

Infrastructure challenges

27. The Council generally supports the list of challenges, noting that there is broad alignment with our own 30-year Infrastructure Strategy that was prepared as part of the Council's 2021-31 Long Term Plan. We suggest that the following points are also considered:

- Define ‘unnecessary congestion’; we need to acknowledge that demand inevitably increases to a point at which congestion tempers that demand - this congestion is both necessary and desirable
- Add a challenge regarding managing community expectations/demands (particularly in the context of population growth), which often far outstrip our ability to deliver
- Acknowledge that increased standards and requirements, driven both nationally and internationally, are an investment challenge
- Note that in Christchurch (and elsewhere, no doubt), we are having to balance the need for new infrastructure to be built, with the urgent need to focus on maintenance and renewals of our current network.

Action Area One: Building a Better Future

Prepare infrastructure for climate change

28. Preparing for climate change must include proactive measures to encourage a climate-friendly behaviour shift, not just reactive measures to cope with a changing climate. We should be looking to reduce vulnerability to climate change impacts through the management of our infrastructure. Infrastructure requirements will shift and change as communities grow or retreat in response to climate change impacts.
29. There are a number of significant challenges in delivering infrastructure that appropriately addresses the impacts of climate change. These include funding constraints, which can often force the use of lowest cost materials and designs, resulting in less resilience; the lack of information surrounding the whole-of-life costs and emissions of materials, and installation costs and emissions (which can vary significantly); and a lack of direction around adaptation planning in areas that are susceptible to sea level rise. If we made a decision to stop externalising the costs imposed on our environment, then price signals could be used to encourage changes in behaviour.
30. Climate change uncertainty: We support the need to recognise this in decision making. An adaptive management approach is most appropriate when dealing with conditions of deep uncertainty to avoid maladaptive action. However, the proposed approach to keep options open for as long as possible could be perceived by communities as local decision makers being weak/unwilling to commit to infrastructure investment. Similarly, the ‘long life, loose fit’ description is not fit for purpose when considering the issues we face in coastal communities – our infrastructure provision may not be about being ‘loose’ but rather about redundancy (i.e. retreat) and only provisioning for a short/medium lifespan.
31. It is important to ensure that infrastructure is fit for purpose. Community expectations often place environmental considerations as a priority, especially climate change and reducing/minimising carbon emissions. Although this is an important consideration, there are times when other considerations may take precedence. For instance, where a water supply pipe passes through contaminated ground the priority must be to protect public health by ensuring the pipe material is non-permeable to the contamination, even if that pipe material produces higher emissions.
32. Bright line testing for resilience: It may be difficult to identify reasonable thresholds for such a test, and a one-size-fits-all approach (e.g. NBS EQ strengthening) may not be appropriate. Infrastructure providers need to balance the cost of resilient infrastructure with the risk of

asset failure. If possible the criteria for the bright-line test should consider how the supporting infrastructure and community needs might change in response to climate change. This would help avoid investment in areas highly exposed to climate change that could be significantly impacted in a relatively short timeframe (especially if climate change retreat is deemed to be the best course of action).

33. Ensure non-built transport solutions are considered first: We fully support this, and in particular the option to use charging/pricing to reduce demand and change behaviour without requiring additional infrastructure investment. We welcome suggestions on mechanisms for parking pricing, given the limited impact that council-owned, or even publicly-available parking has on behaviours. The geographical application of this (to central areas or the broader city) would also need to be clarified. Any charging policies need to be careful not to generate unintended, negative consequences, for example subsidising outlying development.
 34. Increasing densities within a cycling catchment: The Council supports this, however encouraging cycling without the appropriate infrastructure will not encourage uptake and could increase safety risks. This policy should be progressed in tandem with cycle infrastructure, and behaviour change and speed management policies.
 35. Insurance market information: While we support the idea that local government planning should use all relevant information available at the time including insurance markets, we believe that planning should aim to pre-empt withdrawal and price increases made by insurance companies. Action taken by local government to adapt to existing exposure to climate change issues could impact the availability, affordability or need for insurance. We need to be proactive in our response to climate change.
 36. Waste minimisation: As well as the right infrastructure, New Zealand needs to establish pricing incentives that encourage a more circular economy, where resources are utilised and waste is minimised. The development of pricing mechanisms/tariffs that address the whole-of-life costs of products produced should be implemented including mandatory Producer Responsibility to support greater resource recovery. These incentives, supported by investment in infrastructure, will deliver a meaningful reduction in residual waste by incentivising and developing markets for recoverable materials.
 37. When considering waste minimisation, the assessment of embodied carbon should be considered, not just for physical waste volumes, but including the production of goods and transport emissions. A national approach to accounting for embodied carbon would be welcomed. From a resource recovery perspective, the benefits associated with diverted organic materials being turned into compost should be considered in respect to carbon sequestration.
- Q5. How could we encourage low-carbon transport journeys, such as public transport, walking, cycling, and the use of electric vehicles including electric bikes and micro-mobility devices?*
38. Greater uptake of these modes requires:
 - a. Stronger policies and pricing mechanisms to appropriately balance the use of single occupancy vehicles with these modes
 - b. Greater investment in these modes.

39. The Strategy should link to the work being done by the Ministry of Transport on transport emissions reduction pathways, and relevant initiatives/policies of the Climate Change Commission. There are a number of related plans and policies (the One Network Framework, Government Policy Statement on Land Transport, and the regional mode shift plans, to name a few) that outline mechanisms required to support a greater uptake of sustainable modes of transport.
40. Improved urban form will be crucial to make active transport more attractive, and increased urban density to help reduce the need to travel as far for everyday activities. Support for increased uptake of electric vehicles is needed but this must be in tandem with measures such as the use of high occupancy vehicle lanes, and low emission zones. Electric vehicles by themselves will not solve the problems of carbon emissions and traffic congestion, and the manufacturing emissions for electric cars are equally problematic. Only behavioural change will achieve a truly sustainable and low-carbon transport system.

Q6. How else can we use infrastructure to reduce waste to landfill?

41. We need greater investment in suitable waste facilities infrastructure to enable greater diversion, including regional solutions where possible. This will include:
- a. Better facility design (and efficiencies) to enable greater separation of recoverable materials and residual waste
 - b. Opportunities to recycle and compost materials and waste streams not currently diverted (include commercial and industrial sources)
42. Building regional infrastructure will also reduce carbon emissions from transport. Tens of thousands of tonnes of recyclable material is transported either to the North Island or offshore each year. Building new infrastructure in the South Island for processing fibre (paper and cardboard) or glass would therefore have a significant impact in reducing transport carbon.
43. The development of resource recovery spaces that enable community involvement, for example deconstruction activities, repair workshops, research and development, will contribute to reducing waste.
44. There are also actions to be taken at the national level, for example building consistency and capacity in recycling options and providing leadership on product stewardship. We should charge manufacturers for the disposal of unnecessary packaging and the production of non-repairable, 'throw-away' goods (for example, non-fixable batteries for electric bikes). This would incentivise them to produce more robust, longer lasting goods. Similarly, as we switch to an electric fleet, innovation should be encouraged to allow switching of internal combustion engines to electric engines in vehicles (including light aircraft) to avoid unnecessary waste of reusable parts of the vehicle.

Adapt to technological and digital change

45. The rapid pace of technological change is a reality that local authorities need to understand and embrace moving forwards. Internet and mobile connectivity has been changing the way many businesses operate for several years, and with the COVID-19 pandemic, technology became absolutely essential for working and accessing goods and services. The digital age has meant that people have come to expect instant access to information and services across a range of sectors, including when interacting with Council infrastructure and services.

46. It is essential that we future proof our infrastructure. We need to look at what mechanisms we have in place, to ensure that we are ready to employ technology to enable a smart city and an efficient organisation.

Q10. 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?

47. Open source data should be mandatory; a lot of data is collected yet not available, which is inefficient and a lost opportunity. A good example of how data availability can enable rapid and cost-effective work is the Canterbury (now New Zealand) Geotechnical Database that was developed after the Earthquakes. A national portal of natural hazards and shallow groundwater information would be profoundly valuable for infrastructure planning, installation and repair.

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

48. Greater adoption of BIM by the Building Industry will require:
- a. A Central Government mandate
 - b. Requirement for BIM as a project deliverable - the client needs to provide their BIM requirements in order for a fit for purpose BIM to be delivered
 - c. A mainstream solution for creating BIM for existing buildings
 - d. Improved Education – will help in quantifying BIM benefits when used throughout the asset lifecycle. Benefits of BIM during design and construction are well understood, however more needs to be done to educate the industry on the benefits of using BIM beyond planning and construction.
49. BIM can provide enormous benefits and costs savings in that buildings do not have to be entered for checking, after a seismic event. BIM mechanisms can check for structural damage promptly.

Respond to demographic change

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

50. The Council supports the proposal for a population strategy at both the national and sub-national level. This could provide clarity on the amount of growth expected in the future, including demographics, ages, and a range of other factors, and would be better than the current position of multiple migration settings that are primarily based on economic and labour market drivers.
51. Improve analysis of upside and downside risks in infrastructure provision: We do not support the testing of district and long term plans against a ‘high’ and ‘low’ growth scenario in addition to the ‘most likely’ growth scenario. The National Policy Statement for Urban Development already requires high growth councils to plan for growth (15% and 20%) above median/most likely projections, for incorporation into regional, district and long-term plans. The long term plan process is repeated every three years and planning is reassessed regularly on a range of new information, including the impact of variations to population growth.

Partner with Māori: Mahi Ngatāhi

52. The Council is supportive of developing the strength of Māori economies and iwi asset bases and agree that there is an increasing opportunity for Māori to play a significant role in this sector. We feel that clear and early engagement with Iwi to co-design and co-govern will reap mutual benefits for Treaty partners. Traditional colonial frameworks need to make way for the opportunities to partner, co-govern and co-design our future.
53. We acknowledge that this may be a difficult path to follow, however the kōrero is essential to navigating and unlocking greater investment and commitment (intellectual and physical) from Māori. Engagement must be underpinned by the Treaty and an acknowledgement of the principles of Rangatiratanga – mutual leadership, authority and obligation. This is particularly so within the takiwā of Ngāi Tahu.

Ensure security and resilience of critical infrastructure

54. We support the need to develop a common definition of critical national infrastructure and identification of infrastructure assets that meet the definition. The definition will need to acknowledge that critical infrastructure is owned through all levels of government and in some instances is privately-owned. In line with this, the Council considers there is a need for a national strategy that coordinates and directs the provision of key, nationally-significant infrastructure (for example, ports and stadiums). This would ensure the sustainable and cost effective provision of such infrastructure – in terms of location as well as operation.
55. The infrastructure strategy has a clear focus on climate resilient infrastructure, which is entirely appropriate. However, there needs to be an equal focus on ensuring that our infrastructure is also resilient to natural hazards such as flooding and seismicity. We feel that the strategy could be improved by recognising that climate resilience and resilience to natural hazards are equally important.
56. We strongly believe that the likelihood of the Alpine Fault rupturing should be a headline consideration when assessing the resilience and security of critical infrastructure. New research on the Alpine Fault indicates that there is a 75% probability of an Alpine Fault earthquake occurring in the next 50 years. This brings an almost certain event into the planning window of all current and planned infrastructure in the South Island, and lower North Island.

Action Area Two: Enabling Competitive Cities and Regions

Enabling a responsive planning system

57. National Policy Statement on Urban Development: in terms of the suggestion to accelerate the implementation of the NPS-UD, the Council submits that the timeframes to implement the policies are already very challenging to meet. The NPS does not allow for local context to be accounted for – for example, the post-Earthquakes' Christchurch context, where there is already sufficient housing capacity to meet population projections for the next 30 years. There is concern therefore that the NPS-UD will enable 'over-intensification'.

58. In order to accelerate implementation, the use of the Streamlined Planning Process should be automatically available for councils implementing the NPS. Councils can already apply to the Minister for the Environment to use the SPP. However, our experience with this process in Canterbury has shown it can take many months to get approval, which delays the entire process.
59. **Clarity of definitions:** The Council agrees that there is a need for more clarity of definitions that may be causing uncertainty and added costs and time to resolve. This includes the terms ‘amenity’ and ‘well-functioning urban environments’, and what they mean for quality/urban design matters.
60. **Standardised rulebooks to increase capacity and reduce cost and uncertainty:** While a desire to streamline the planning system to improve efficiency and effectiveness is supported, any standardised ruleset must be suited to all areas and must be thoroughly tested before being rolled out. Blunt, overly simplistic rules and definitions that are not appropriate for all circumstances, or which are hastily conceived, have the potential for unanticipated outcomes. They may also cause protracted litigation processes to provide necessary clarity (contrary to the intentions of an expedited and cost-effective planning system).
61. **Development capacity measures:** Options C1.2 and C1.3 largely concern existing government policy already being proposed through the Resource Management Act (RMA) reforms programme.
62. It is acknowledged that providing sufficient housing supply is important and the Council has worked to ensure that there is sufficient housing supply for the next 30 years. However, we need to be careful about making assumptions regarding the impact of housing supply on house prices. Christchurch’s experience is that even though we have over 30 years of housing supply available², house prices have still risen over 20% in the past year³. Thus other factors are having an impact on high urban housing prices.
63. More emphasis should be given to unlocking the other barriers to delivering affordable housing at pace, including land banking, development sector capacity and capability, difficulties associated with land fragmentation, and access to development financing.
64. There are costs to providing more housing supply than is needed to meet demand. An oversupply of land for housing can lead to the inefficient use of infrastructure. This increases costs for ratepayers - the upfront capital costs as well as the ongoing operational infrastructure costs. In the Greater Christchurch context we are facing a challenge in the form of private plan change requests for development of subdivisions in the Selwyn District. Of 20 plan change requests received, two thirds fall either outside of the Projected Infrastructure Boundary, or outside of the sub-region entirely.
65. The Council would like to clarify that ‘the release of additional development capacity’ is not inferred to be greenfield land release, which can have significant costs. The release of

² Our Space 2018-2048: Greater Christchurch Settlement Pattern Update Page 15, <https://greaterchristchurch.org.nz/our-work/background/our-space/>

³ REINZ Monthly Property Report - March 2021, <https://www.reinz.co.nz/Media/Default/Statistic%20Documents/2021/Residential/March/REINZ%20Monthly%20Property%20Report%20-%20March%202021.pdf>

greenfield land is managed to ensure there is sufficient land for housing, whilst managing urban sprawl to reduce carbon emissions, traffic effects, and the loss of highly productive land, and maintain biodiversity. Analysis continues to demonstrate that the market most demands single standalone houses with a garden, i.e. opportunities offered through greenfield development. The take up of townhouse and apartment typologies will remain low until the true costs of greenfield growth are factored into housing location decision making, and the trade-offs are weighted in favour of more sustainable intensification opportunities.

66. In the Christchurch context, central government holds significant land interests that could be further developed. Maximising government land development capacity is an opportunity that could be the catalyst for enabling supply at pace.

Coordinate delivery of housing and infrastructure

67. In general, we support the initiatives outlined to integrate the planning and delivery of infrastructure and development.
68. Provision of three waters infrastructure to enable growth: We do not consider that there is a significant issue with three waters infrastructure holding up development in Christchurch. As outlined above, the provision of infrastructure to service growth must be carefully planned and considered. It cannot simply follow the preferences of developers. We do face a future challenge around supply (for example for our drought-vulnerable communities on Banks Peninsula), and solutions to address this need to be innovative in the way we think about and use infrastructure – for example, its role in recycling water.
69. Volumetric charging to fund proportion of water infrastructure: The Council recently approved its Long Term Plan, which includes a form of volumetric charging that is targeted at very high volume users only (an excess water use targeted rate). Based on evidence from other councils that have put in place volumetric water charging, we expect to achieve around a 20 to 30 percent reduction in total water use with the excess water use targeted rate. Commercial water users also pay a volumetric charge for water use over and above their annual allowance. The annual allowance is based on the water rates paid at the property. The case for volumetric charging for wastewater could be considered.
70. Improve information on infrastructure capacity and costs to service growth: The Council supports this recommendation, and considers that this may contribute towards the more efficient, economical phasing of development. We do note, however, that requirements for additional information can be costly and that local government does not have additional funding to meet these requirements. Funding assistance should be provided by central government to meet any increased requirements.
71. The development of condition and capacity methodologies for three waters infrastructure assets should be the responsibility of water authorities. Consultant and industry group-developed methodologies are often inconsistent with the data that water suppliers have and therefore impossible to apply, for example the LINZ Asset Metadata Standard.
72. Post-implementation reviews of transit-oriented development opportunities: These are good practice, but once again additional funding would be required in order to undertake these reviews. It would be important to ensure that the findings of any review lead to improvements.

73. Implement regional spatial planning: This is largely existing government policy already being proposed through the RMA reforms. The Council is already working with the Greater Christchurch Partnership and central government on a Spatial Plan for Greater Christchurch. It should be recognised that regional spatial plans and combined regional and district plans require very effective cross-organisational collaboration. We welcome the consideration of central government funding and resourcing to support the development of these plans.

74. Water-sensitive urban design measures: We support a review of barriers to water sensitive design practices, and better coordination between water infrastructure providers, developers and land-use planners. We note that this will be more difficult if, as a result of the three waters reforms, three waters are no longer within local councils, and that it will therefore need proactive attention. It is important that the provision of infrastructure for growth is not at the expense of the environment; Te Mana o Te Wai must be upheld by infrastructure providers.

Improve access to employment

Q19. What cities or other areas might be appropriate for some form of congestion pricing and/or road tolling?

75. In Christchurch it may be appropriate to employ transport pricing mechanisms in the future, particularly in support of the policy discussions currently underway with the Ministry of Transport, recognising pricing as a key tool for emissions reduction. Any such measures would need to be undertaken in conjunction with capacity constraints or other measures to reduce traffic volumes/capacity, and significant improvements in alternative transport systems.

Q20. What is the best way to address potential equity impacts arising from congestion pricing?

76. The potential equity impacts are geographical as well as social. We need to be careful to not catalyse development outside of any transport pricing zone, and so need to carefully consider the causes of congestion, so that we can mitigate it through pricing and other measures such as road design. We need to ensure that any revenue raised through transport pricing reduces the cost of sustainable transport modes so as to provide greater access and avoid creating urban sprawl. This involves improving public transport and providing incentives for mode shift and active transport.

Plan for lead infrastructure

Q21. 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?

77. While a longer lapse period could make sense in some instances, for example our Mass Rapid Transit corridors, for which we are unlikely to need the designation in the next decade, we are not convinced that the existing framework is a barrier. We have had designations in our District Plan lasting for decades under the current arrangement. Specifically, we do not support the suggestion of longer designation durations under Option C4.2, as a longer lapse date and extensions are already enabled under the RMA (section 184) and are intended to provide flexibility to account for projects of different kinds, without causing planning blight.

78. For any long duration designations, guidance on transitional uses may be appropriate, and a requirement to demonstrate active progress towards achieving the designation would be necessary.

Q22. Should a multi-modal corridor protection fund be established? If so, what should the fund cover?

79. We support the establishment of a multi-modal corridor protection fund, which should cover major infrastructure such as Mass Rapid Transit. A Special Purpose Vehicle (SPV) (or similar) could be established for this purpose, as it would hold the debt off a council's balance sheet. The likely Waka Kotahi contribution would need to be either provided upfront in cash, or Waka Kotahi would need to assume responsibility for a share of the debt.

80. If the corridor is planned to accommodate other infrastructure, such as three waters, these activities should fund a share of the costs through rates and development contributions. There is a need to better manage different infrastructure assets within the same corridor. This is a matter of economy (not digging up more often than necessary) and critical to resilience, especially where there are vulnerable pinch points carrying multiple infrastructure assets.

Improve regional and international connections

81. Supply chain strategy: This will be absolutely vital if rail and coastal shipping are going to be viable and part of an efficient, sustainable integrated national logistics system in future. The road transport sector is large and has a strong interest to minimise rail take-up; it will therefore need to be involved in the development of any strategy.

82. Update the 2006 digital strategy: The Council agrees with this recommendation; 15 years is too long a lapse in the context of ongoing digital and knowledge transformation.

Action Area Three: Creating a better system

Integrate infrastructure institutions

83. The Council acknowledges the multiple government-initiated reviews and policy work underway; we are continuing to engage with the government on all of these including the Future for Local Government Review. The future for infrastructure provision is tied up with the outcomes of these reviews.

84. Moving infrastructure planning, provision and service delivery to regional/wider entities would effectively remove the critical mass of councils as efficient providers of infrastructure, facilities and services. This could also compromise the effective delivery of what remains (parks, libraries, sports and recreation, community events, etc.). The integration of planning and delivery across asset classes and resultant efficiencies would be lost as there would no longer be the same opportunities for different areas to leverage off each other, for example parks and transport, and three waters and transport. The Council reiterates its introductory point that in questions such as these, one size will not necessarily be best for all, and that while smaller councils might benefit from some level of amalgamation, the Christchurch City Council possesses the critical mass to continue to undertake functions related to infrastructure provision itself.

Q26. How can local and central government better coordinate themselves to manage, plan and implement infrastructure?

85. For local councils, the main mechanism through which we can strategically undertake 'planning, determining, delivering and operating infrastructure' is through articulation in our infrastructure strategies – the provisions for which are set out in the LGA Section 101B. The requirements of Section 101B would benefit from review, for example to:
- Explicitly require councils to demonstrate readiness for climate change impacts, and resilience to disruptions – this should be at the forefront of an Infrastructure Strategy purpose
 - Simplify the requirements, so that it is easier for councils to tell a clear, simple story to their community about future infrastructure issues, decisions and investment – the large number of provisions mean the strategy document is 'bogged down' with detail and it is very difficult to tell the story in a compelling way.
86. Stronger collaboration between central and local government on urban planning and development will be critical to the coordination of infrastructure planning and provision. An Urban Growth Partnership will be an important mechanism in achieving this.
87. A stronger focus on outcomes and value for money is required. An example of a lack of coordination, leading to an insufficient focus on the best outcomes, is the New Zealand Upgrade Programme, which constrains investment to Crown-owned assets that do not necessarily present the greatest opportunity to add value and meet national and local priorities. This also at times works against the priorities of our planning framework. Another example is central government's land holdings in Christchurch, which could also be better employed to maximise development capacity.

Ensure equitable funding and financing

Q28. What steps could local and central government take to make better use of existing funding and financing tools to enable the delivery of infrastructure?

88. More joined up planning, delivery and funding of transport infrastructure would be a significant step forward. Other options include:
- Fully funding the cost of maintaining effective and reliable infrastructure networks
 - Central government funding for the health component of water and wastewater networks
 - Crown land to be rateable (S2.2)
 - Councils to be able to set a visitor accommodation tax in consultation with their community
 - International Visitor Conservation and Tourism Levy to be used, in part, to fund infrastructure capacity to service visitor demand (S2.1), although there may be difficulties in local councils having the ability to set a visitor accommodation tax.
89. Value capture mechanisms: The Councils does not oppose the use of value capture mechanisms; however we note that they can be complex and blunt instruments. The value of a property has a huge number of variables, meaning it is very difficult to isolate the component associated with infrastructure provision. This would largely be an arbitrary exercise. If values do go up following infrastructure provision, the properties with an increase in value will pay proportionately more rates than previously, regardless of the rating basis.

Q29. Are existing infrastructure funding and financing arrangements suitable for responding to infrastructure provision challenges? If not, what options could be considered?

90. New financing tools like SPVs could provide sufficient access to capital for high growth councils to fund new infrastructure provision to service growth in addition to capital renewals. Consideration needs to be given to the equitable distribution of funding for infrastructure, and mechanisms that could enable this on a national level.

Q30. Should local authorities be required to fund depreciation as part of maintaining balanced budgets on a forecast basis?

91. Funding depreciation achieves a number of financial outcomes:

- It ensures today's ratepayers pay for the infrastructure they are using, and ultimately wearing out, rather than having future rate payers fund that cost
- It enables the cost of replacing the infrastructure to be spread across the economic life of the asset, achieving intergenerational equity
- It enables the cost per year of capital renewals to be smoothed over time rather than having peaks and troughs as infrastructure needs replacing
- Having depreciation funds available ensures asset replacement is not deferred indefinitely. We need to ensure that funds are reserved for investment in infrastructure replacement, and not put in a general fund and used elsewhere.

92. In funding depreciation we must also consider that, in the long term and with changes in levels of service over 30 to 50 years, we may not be replacing like-for-like infrastructure. This is particularly the case in our context of rapid technological change. As a local authority with a variety of different infrastructure types under our jurisdiction, we would appreciate having the ability to charge depreciation at a rate that reflects the anticipated life expectancy of the asset.

Require informed and transparent decision making

93. Cost-benefit analysis for new water infrastructure: We support the development of a cost-benefit analysis manual for water infrastructure, provided the methodologies in the manual allow measurement of costs and benefits for a long time period, preferably whole of life. Short timeframe CBA assessments are meaningless on long-life assets. Cost benefit analysis should also include capital and whole-of-life carbon in the analysis.

Develop and prioritise a pipeline of work

94. The Council supports prioritising a pipeline of infrastructure projects and initiatives. We do note however that this is a difficult task for organisations such as local government councils, with large numbers of lower value infrastructure (pipe networks), especially on buried networks where condition and performance inspections are difficult and costly.

95. Growth uncertainty is another challenge, and any prioritisation will need to be flexible enough for project changes as required. The timeframe for the pipeline of work needs to match data knowledge and confidence.

Improve project procurement and delivery

Q33. What could be done to improve the procurement and delivery of infrastructure projects?

96. Project delivery needs to be better streamlined; barriers include the sheer number of consents and investigations required, with associated costs and delays. After achieving resource consent, archaeological investigations, land contamination investigations, historic places trust agreements and similar must all be completed prior to starting work. Health and safety and temporary traffic management requirements also heavily impact the cost and procurement requirements for contracts. The recent changes to temporary traffic management plans will further increase costs and make compliance harder.
97. Although we agree some consents are required for protection of health, culture and the environment, where the project is straightforward such as a pipe renewal, a fast-track process would be beneficial.
98. The NZS contract form could be improved to encourage parties to use good project management/cost control practice. This would provide a more granular breakdown of contract cost components, to improve the currently-limited collaborative risk allocation/management provisions.

Reduce costs and improve consenting

Q35. What could be done to improve the productivity of the construction sector and reduce the cost of delivering infrastructure?

99. The Council considers that the following measures would contribute to improved delivery: enabling infrastructure where appropriate and minimising consenting costs; new legislation making appropriate provision for streamlining infrastructure projects; and strategic planning issues and environmental effects (including amenity where appropriate) still being considered for such projects.
100. Contracts that incentivise early or timely completion and cost the contractor/consultant if they are late lead to much more efficient projects (e.g. Northern Gateway project in Auckland). Coordination of resources so that concurrent large projects are not trying to utilise the same limited resources is critical.
101. Standardise design: We support standardisation of designs provided the standardisation considers the different requirements of different areas. In three waters, water tables, aggressive soil conditions, and ground contamination vary greatly between areas and any standardised designs must consider these conditions. Standardised designs can be of benefit but can limit creativity, so the adoption of performance-based outcomes while offering standardised designs would be preferred.

Activate infrastructure for economic stimulus

Q36. What components of the infrastructure system could have been improved to deliver effective stimulus spending during the Covid-19 pandemic?

102. Local and central government responses to the Covid-19 impacts on the NZ economy have included some increased investment in infrastructure with the government committing to ongoing additional investment in its building stock, in particular, through Budget 2021.

103. There are some limitations to investment in infrastructure as an economic stimulus:
- a. Infrastructure delivery has a long lead time. This can mean prudent infrastructure investment is too slow to be effective as a stimulus when it is needed, which in turn means shovel-ready projects are brought forward. However, many of these have been deferred as they do not provide adequate returns.
 - b. Ramping up infrastructure delivery can quickly cause capacity constraints. New Zealand is a small market where it is problematic to increase activity primarily in one area of the economy that requires specialist skill. This can then result in cost increases across the whole sector.
 - c. Investment may go to the wrong places. An example of this is in transport where investment in public transport produces around twice as many jobs as investment in roads, and provides better long term returns.
104. In order to provide effective stimulus in any such context, there needs to be a good system of planning and prioritisation of the project pipeline; sufficient information about these projects in order to understand readiness; and a knowledge about which will provide the best long-term benefits to the community.
105. Thank you for the opportunity to provide this submission. For any clarification on points within this submission please contact Rae-Anne Kurucz, Team Leader Strategic Transport (rae-anne.kurucz@ccc.govt.nz).

Yours faithfully



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Mayor of Christchurch