

MINISTERIAL BRIEFING NOTE

Subject	NZ Upgrade Programme – Prioritisation
Date	15 April 2021
Briefing number	BRI-2158

Contact(s) for telephone discussion (if required)				
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Action taken by Office of the Minister

- Noted
- Seen by Minister
- Agreed
- Feedback provided
- Forwarded to
- Needs change [please specify]
- Withdrawn
- Overtaken by events

15 April 2021

Minister of Transport

Minister of Finance

NZUP BASELINING AND PRIORITISATION

Purpose

1. This briefing summarises the outcome of the baselining work for Waka Kotahi and provides you with a recommendation on the prioritisation of the programme.
2. To ensure you have visibility of our thinking, this advice is being provided before the Waka Kotahi Board has received and made a decision on it. The Board Chair is aware of this.
3. It should be noted while we have included KiwiRail projects in the Waka Kotahi recommendation, KiwiRail will provide separate advice to you on its projects.

Background

4. The New Zealand Upgrade Programme (NZUP) was initiated by government in December 2019, with a primary outcome of stimulating the economy by increasing construction activity over the next ten-year period.
5. The final multi-modal transport programme was announced in early 2020 and includes a range of projects across New Zealand, all of which were already included in long term plans.
6. The final programme includes 20 Waka Kotahi projects and 6 KiwiRail projects, with investment focussing on supporting growth, improving safety and providing travel choice across seven of the country's growth areas – Northland, Auckland, Waikato, Bay of Plenty, Wellington, Canterbury and Queenstown. The government allocated \$6.8 billion to deliver these projects.
7. The programme is now in its second year. The availability and quality of information across the programme has significantly increased since completion of the Establishment Report. This will continue as the programme matures and the scope, associated costs, and risks become increasingly visible.
8. On 22 February 2021, Joint Ministers requested a programme baseline to be completed by March 2021 providing a clearer view of scope, benefits, costs, outcomes and schedules for each of the projects.
9. This briefing provides a summary of findings from this baselining exercise and an assessment of prioritisation options in response to the emerging cost pressures identified through the baselining work.

Baselining

Key baselining findings

10. The baselining work has now been completed. Key findings are summarised below:
 - a. the Waka Kotahi elements of the programme have increased in cost from the \$5.6 billion identified in the Establishment Report to \$10-\$12 billion. This range is the P50 (expected) estimate and P95 (upper) estimate costs respectively;
 - b. the Establishment Report costs excluded escalation, while the latest baselining numbers include an allowance for cost escalation over the lifespan of the programme;
 - c. including KiwiRail and Waka Kotahi projects, the total programme cost has increased to \$11Bn - \$13 billion, noting that this figure includes escalation costs that were excluded from the initial allocation of \$6.8 billion outlined in the Establishment Report; and
 - d. the schedule for the delivery of the programme has been extended from a completion date of 2029 to 2032.

Cost pressures

11. As outlined above, the latest programme costs are significantly greater than those anticipated in 2019.
12. These cost changes reflect the challenges observed across the sector including cost increases associated with scope and design development over time, design standards arising from consent conditions, technical specifications for infrastructure, and escalation allowances.
13. For the NZUP programme, the primary elements contributing to increasing costs are:
 - a) property acquisition costs have increased significantly due to market conditions (property escalation), and the number of properties now required to deliver the programme outcomes has increased.
 - b) as the projects have progressed and more information has become available, scope and cost risks have become more apparent. The scope on many of the projects is still fluid, particularly those that are in the business case phase.
 - c) changing standards and specifications e.g. climate change adaption, pavement specifications, environmental requirements.
 - d) a significant increase in contingency allowance due to the level of uncertainty across the programme.
 - e) cost escalation was not included in the initial budget allocations and over 5-10 years, is likely to be significant.

Cost escalation

14. Cost escalation was excluded from the cost range provided to Ministers in late 2019, which was noted in the Establishment Report.
15. Over the 10-year lifespan of the programme, it is expected that project design and construction (i.e. changes in costs for materials, labour etc) will increase as they have done historically. Based on recent escalation rates this cost could equate to approximately \$1 billion across the programme (excluding property escalation).
16. As this cost was originally excluded from the cost ranges provided to Ministers, accommodating it within the \$6.8 billion allocation will have a significant impact on the scope of the programme and its outcomes.

Baselining assurance

17. The baselining work has been a substantial undertaking for Waka Kotahi and KiwiRail between October 2020 and March 2021 and has involved close working relationships with the Ministry of Transport, Treasury and the Oversight Group advisors.
18. The work has been undertaken at both project and programme levels, and has included sponsors, project and programme governance, and has been supported by a diverse range of technical staff and consultants.
19. This has resulted in a significant improvement in the understanding of scope maturity, benefits, costs, risks, outcomes and schedules.

Baselining assumptions and risks

20. Notwithstanding the above, it should be noted that the programme is in its second year and there are substantial risks that will need careful management. There are also some key assumptions that underpin the findings of the baselining work.
21. These assumptions include:
 - a) **scope** - Cost and schedules are based on delivering against the high-level scope as set out in the Establishment Report. Any future changes to scope will impact on both cost and schedules.
 - b) **escalation** - Changes to escalation rates from those assumed could have a material impact.
 - c) **property** - Property prices will increase in line with the escalation allowance included in the estimates; if actual rates exceed this assumption, property acquisition costs will increase.
 - d) **ground conditions** - Many of the larger projects to be delivered later in the programme have minimal site investigations to date; assumptions have been made about ground conditions and necessary engineering solutions.
 - e) **legislative frameworks** - The Resource Management Act (RMA) Reform work and changes to RMA national policy documents create uncertainty across the programme. Policy changes may affect costs and schedules on some projects.

- f) **Covid-19** – The pandemic will continue to create a range of uncertainties in the short to medium term, including economic conditions (e.g. funding availability for related local authority projects) and the availability of resources.

Prioritisation

Context

22. The NZUP budget allocation is \$6.8 billion and we understand that this amount is fixed. The following advice has been developed on that basis.
23. As outlined earlier in the briefing, the cost estimate range for the programme following completion of the baselining work is between \$11 billion and \$13 billion. This means that the projects within the programme need to be prioritised to achieve the desired outcomes.
24. The programme responds to a wide range of outcomes and all projects are credible transport system improvements.
25. Ministers have indicated three key priorities: carbon reduction, housing and transit-orientated development, and economic stimulus.
26. As we are still in the early stage of the programme there are a range of viable options, including delivering some projects in stages/phases.
27. A presentation summarising our approach to prioritisation is attached as Appendix 1.
28. A table outlining the latest estimated cost ranges and construction start/finish dates for Waka Kotahi NZUP projects only, is attached as Appendix 2.

Previous Advice to Ministers

29. On 11 March 2021, the Ministry of Transport provided a briefing to the Joint Ministers on NZUP funding risks and programme options (ref OC210055). This briefing outlined recommendations to commit to 'Delivery Momentum' projects, while focusing prioritisation decision on the remaining larger projects. Ministers accepted these recommendations in principle subject to the outcome of the baselining work.
30. On 12 March 2021, Waka Kotahi provided a briefing to the Joint Ministers requesting approval for its Board to make a decision regarding the awarding of a design contract for Takitimu North Link Stage 1. Waka Kotahi was advised on 14 April 2021 that Ministers had approved this.
31. On 1 April 2021, the Ministry of Transport provided a briefing to Minister Wood regarding Drury options for investment (ref OC210264). It recommended route protection of the full Mill Road corridor and delivery of the northern end of Mill Road (Manukau section); route protection of the full Papakura to Drury South road corridor; and delivery of the northern end of the Papakura to Drury South project including the Drury interchange (Papakura to Drury South Stage 1).

Delivery Momentum projects

32. There are several smaller projects and some larger projects where construction has started or is imminent. Pausing on these projects is not recommended from an economic stimulus or funding release perspective. These projects also respond well to Ministerial priorities on carbon reduction and housing.
33. The projects included in the Delivery Momentum categories (small and large) are the Canterbury Package (6 projects), the Queenstown package (3 projects), the SH1/SH29 intersection, the SH58 safety improvements, the Auckland Rail Package (3 projects), the Wellington Rail Package (3 projects), Papakura to Drury South Stage 1 and Takitimu North Link Stage 1.

Prioritisation approach

34. Taking the above context into consideration, we have undertaken a strategic assessment of remaining projects against the Government Policy Statement on Land Transport strategic priorities (Safety, Better Transport Options, Climate Change and Improving Freight Connections) and the three strategic priorities identified by the Joint Ministers (Carbon Reduction, Housing and Transit Oriented Development, Economic Stimulus). It should be noted that these projects have also been assessed relative to each other i.e. ranked.
35. In the case of the Northern Pathway, it is difficult to assess this project on an equal basis as the project is quite different to others in the programme. Waka Kotahi recommends that the Northern Pathway is included in the programme due to its potential to have a significant impact on carbon reduction within our largest urban centre and has the potential to be an iconic lead infrastructure asset for active modes. The proposed bridge structure (ref BRI-2118) will also complete a key missing link in the Auckland walking and cycling network.
36. With regard to the housing and carbon reduction outcomes, there is an inevitable tension in that increasing housing provision will increase the need for movement of people and freight in the short to medium term. However, as the vehicle fleet evolves via technology and policy changes, the transport system will become increasingly less carbon intensive over time. NZUP is a multi-modal programme and will provide the foundations for a lower carbon transport system in future.

Waka Kotahi recommended prioritised NZUP scenarios

37. Waka Kotahi has recommended a prioritised scenario for delivery within the \$6.8 billion investment.
38. The scenario includes funding for the 'Delivery Momentum' projects as well as funding for South Auckland as per the Drury Investment Options advice provided to the Minister on 1 April 2021 (ref OC210055).
39. It also allows for work to continue towards a logical defined milestone, which will provide Ministers with the option to continue to the construction phase, subject to the availability of additional funding in the future. The following table sets out the details of the prioritised programme.

\$6.8Bn option	
Projects fully delivered:	
<ul style="list-style-type: none"> • SH1/SH29 intersection • SH58 safety improvements • Canterbury Package (6 projects) • Queenstown Package (3 projects) • Northern Pathway • Takitimu North Link Stage 1 • Takitimu North Link Stage 2 	<ul style="list-style-type: none"> • Papakura to Drury South Stage 1 • SH2 Melling • KiwiRail Auckland Package (3 projects) • KiwiRail Wellington Package (3 projects)
Projects partially delivered:	
<ul style="list-style-type: none"> • Mill Road (Manukau section only) • Whangārei to Port Marsden (staging or scope reduction) 	
Projects taken to route protection and 50% of property purchase:	
<ul style="list-style-type: none"> • Mill Road (Takaanini, Papakura, Drury sections) • Papakura to Drury South Stage 2 • Ōtaki to north of Levin 	
Projects taken to route protection and completion of property purchase:	
<ul style="list-style-type: none"> • Penlink 	

40. This scenario delivers against a range of outcomes, with investment in Northland, Auckland, Waikato/Bay of Plenty, Wellington, Canterbury and Queenstown. The presentation in Appendix 1 includes illustrations which show how this funding is distributed across the regions, which will support the drive to stimulate the economy.
41. If the funding allocation was to be increased to \$7.6 billion to account for the escalation costs initially excluded from the allocation, Waka Kotahi would be able to deliver the full Whangārei to Port Marsden project.
42. The Waka Kotahi costs for the above scenario are based on a P50 (expected) cost estimate whereas the Kiwi Rail cost estimates are based on a P95 level. A more conservative funding approach would require additional funding or reductions in scope.

Implications of prioritisation

43. The prioritised scenario will have implications for projects that are proposed to not progress to construction. The specific implications are outlined in Appendix 1, but are summarised here:
- a) Significant changes to the programme will have implications for local authority and developer housing and infrastructure plans, e.g. Penlink and later stages of Mill Road.
 - b) Alternative investment programmes will be required in the short to medium term to address network safety issues, e.g. Ōtaki to north of Levin.
 - c) There are significant stakeholder expectations on some projects. Not progressing to construction, or scope reduction, is likely to have a negative impact on relationships, and reputation e.g. Penlink (industry and community), Ōtaki to north of Levin (community and landowners), Mill Road (community and landowners), Whangārei to Port Marsden Highway (community and landowners).

Next steps and managing the programme going forward

- 44. While the recommended prioritisation approach (or other prioritisation choices of a similar scale) provides a programme that is expected to be deliverable within the funding budget, there is an opportunity and need to continue to manage the programme in a dynamic way.
- 45. This could include transparent decision points, significance thresholds and contingency management protocols for the programme, which will enable the delivery of the agreed outcomes within the allocated budget.
- 46. Once final prioritisation decisions are made, we will consider whether further project phasing is required to align with industry delivery capacity, e.g. property acquisition.

It is recommended that you:

- 1. **Note** the contents of this briefing. Noted
- 2. **Agree** to meet with Waka Kotahi at your earliest convenience to discuss. Yes / No

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Brett Gliddon

General Manager, Transport Services

Date: 15 April 2021

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Hon Michael Wood, Minister of Transport

Date:

.....
Hon Grant Robertson, Minister of Finance

Date:

Appendix 1 – NZUP Prioritisation presentation

Appendix 2 – Waka Kotahi NZUP Project Summary

DRAFT subject to Waka Kotahi Board endorsement