

EA to Board to insert**BOARD PAPER**

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| Paper no: | [EA to Board to insert] |
| Meeting date: | 25 August 2017 |
| Prepared by: | Rob Napier, Interface Manager – Mt Messenger Alliance |
| Recommended by: | Tommy Parker, General Manager, System Design & Delivery |
| Board function: | [Board Secretariat to insert] |
| Subject: | Mt Messenger Bypass: Preferred option and approval in principle of implementation funding |

It is recommended that the NZ Transport Agency Board resolves to ...

- **Support Option E** which has been identified as the preferred option through multi criteria assessments as part of the detailed business case for the Mt Messenger Bypass Project.
- **Delegate** to the NZ Transport Agency Chief Executive the approval of the detailed business case for the Mt Messenger Bypass project.
- **Approve** in principle the allocation of \$110 million of National Land Transport Programme funding for implementation, subject to approval of the detailed business case for the Mt Messenger Bypass project.
- **Note** that \$90 million of Crown funding via the Accelerated Regional Roothing Programme is already allocated to the Mt Messenger Bypass project.
- **Support** lodging of consents and the notice of requirement for the Mt Messenger Bypass project, subject to approval of the detailed business case.

Key events leading up to the recommendation of the preferred option for the Mt Messenger Bypass

| Date | Key event |
|----------------------------|---|
| 8 May 2015 (15/05/0926) | The NZ Transport Agency Board noted that the Programme Business Case for the Tranche 2 Accelerated Regional Roding Project Mt Messenger Bypass was complete and work on the indicative and detailed business case had commenced |
| 2015 | The Awakino Gorge to Mt Messenger Indicative Business Case assessed 58km of the SH3 corridor and recommended a range of alternatives to improve safety, resilience and journey experience. Alternatives included various on-line / in-corridor improvements and also offline realignments that bypass the Mt Messenger Tunnel |
| January 2016 | The Government announced funding would be made available to fund the construction of the Mt Messenger project with the intention to accelerate the delivery of the project to a 2020/21 opening |
| April 2016 | The detailed business case for Mt Messenger commenced, including the setting of project objectives, field investigations and engagement with key stakeholders and the public |
| April 2017 | The Transport Agency procured an Alliance to complete investigations, consenting, design and construction |

The Mt Messenger Bypass project's objectives seek improved safety, resilience and growth

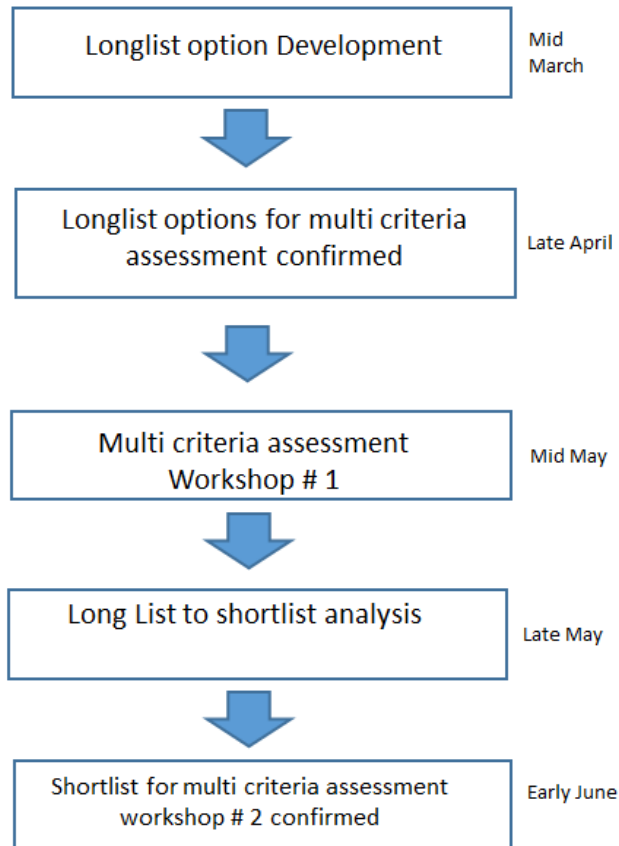
The Mt Messenger Bypass project's (Project) objectives have evolved from the programme objectives and seek to:

- enhance safety of travel on State Highway 3
- enhance resilience and journey time reliability of the state highway network
- contribute to enhanced local and regional economic growth and productivity for people and freight - by improving connectivity and reducing journey times between the Taranaki and Waikato Regions
- manage the immediate and long term cultural, social, land use and other environmental impacts of the Project - so far as practicable by avoiding, remedying or mitigating any such effects through route and alignment selection, highway design and conditions

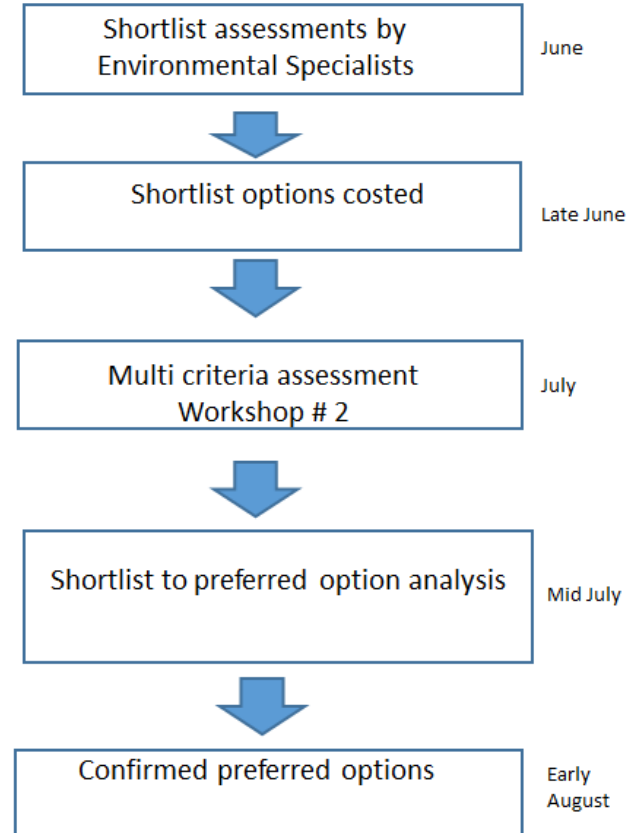
The detailed business case for the Project is nearing completion - a robust long list to short list multi criteria assessment process is complete and a recommended option identified

An extensive assessment of options has taken place

Longlist to Shortlist Process



Shortlist to Preferred Option Process



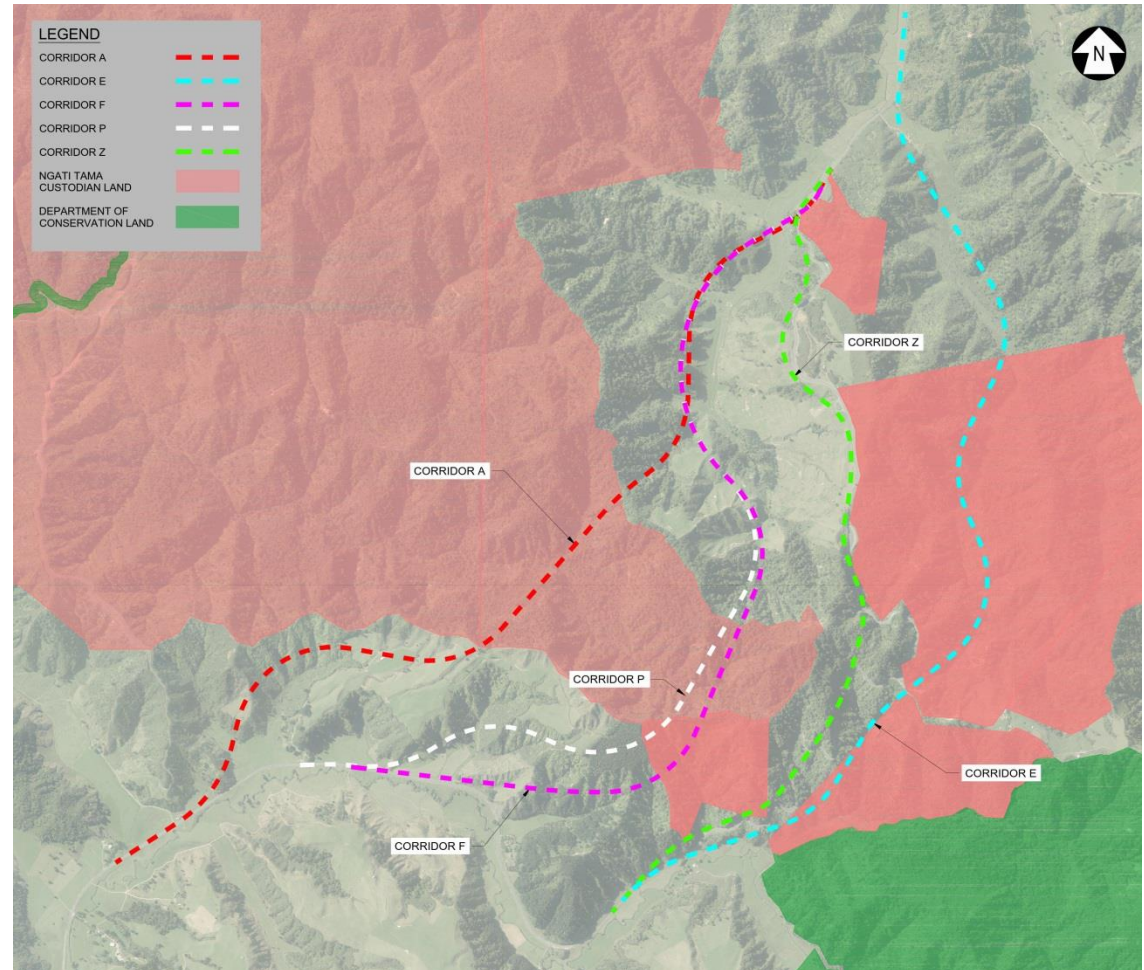
Twenty four options were shortlisted to five options

A long list of twenty four options were developed and assessed in detail by experts and stakeholders in 2017

Multi criteria assessment was carried out on each producing a short list of five options

Three options were west of the existing alignment (options A, P and F), one option was an 'online' option (option Z) and one option was to the east of the alignment

Summaries of the assessments are available in the Resource Centre

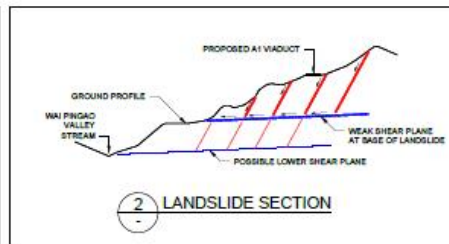
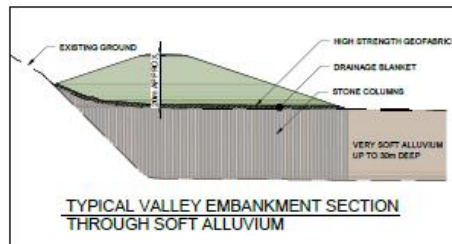


Initial assessment indicated technical and environmental challenges

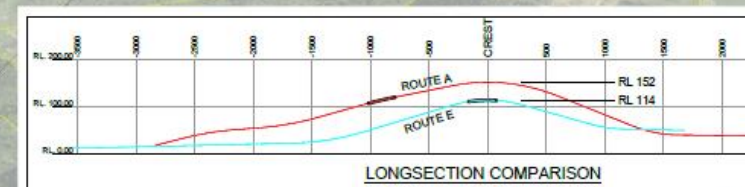
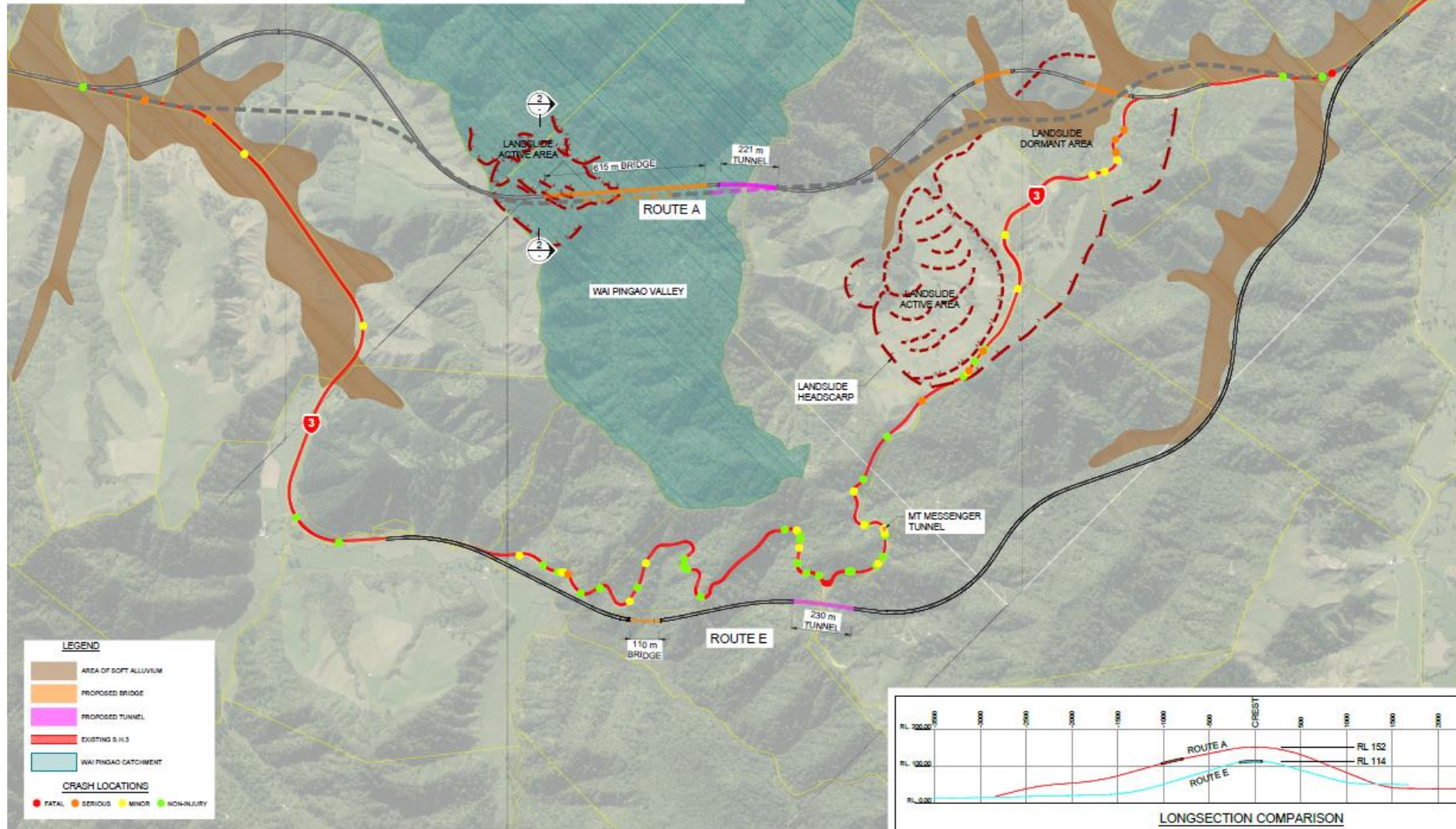
- Option A was the worst performing option in the shortlist multi criteria assessment
- Option F was a similar route to Option P, but performed worse through the multi criteria assessment; Option F was not considered any further
- Option P (a western option), Option E (the eastern option) and Option Z (the online option) all received broadly similar scores
- All options presented technical and environmental challenges (including effects on ecological, landscape); treaty settlement land with associated cultural and environmental values is found across the study area
- Further work was done to refine Options A, P, E and Z - less significant modifications were made to the other three options
- A modified, shorter Option Z option, tying back into the existing road at the northern tunnel portal was developed for comparison purposes

Western corridor issues: active landslides and weak alluvial plains

- Specialist investigations in 2017 revealed two previously unknown large-scale and active landslides along the proposed western corridors
- These features are very challenging in terms of liquefaction and potential structural damage and therefore potential risk
- Very weak alluvial plains 15m – 30m deep were also identified for the first time across large areas of the study area
- Avoidance of these newly discovered and significant geotechnical features is recommended, as they would:
 - result in costly mitigation
 - undermine the Project's resilience objectives
 - create unacceptable residual risk



Active landslide in western corridor



Western corridor issues: nationally significant ecological and landscape features

The assessment also identified that the Western corridor contains:

- Unbroken sequences of high quality, predator-controlled, forest from marine to mountain (unique on the North Island) with pockets of totara and rimu between 500 to 800 years old, NZ cress Matangaoa (Acutely Threatened) and Pingao (Nationally Endangered)
- North Island brown kiwi – classified as endangered
- Kokako – at risk, recovering, re-introduced by iwi and DOC in 2017
- New Zealand falcon - classified as nationally vulnerable
- Long-tailed and short-tailed bats - classified as nationally vulnerable – threatened
- Regionally Significant Landscape areas (Waipingao valley) in the New Plymouth District Council operative District Plan, which will likely be reclassified as Outstanding Natural Landscapes in the draft Plan (expected later in 2017)

There has been significant engagement with members of the public and key stakeholders

- Engagement and communications has been ongoing, and collaborative relationships have been formed and maintained with priority stakeholders (including iwi, Department of Conservation (DOC), councils and transport advocates)
- High points of engagement include a multi-channelled and comprehensive consultation on options. Outcomes from public consultation were clear with strong support for a:
 - “solution that delivers travel time, safety and reliability as benefits, while considering the long term view on the form of improvements that will benefit future generations and the environment”

(Consultation on Options Report, March 2017)
- To build on this momentum, further public engagement occurred in June 2017 to provide an update on the five shortlisted options. The Transport Agency had outstanding attendance at public sessions with the business community and public expressing a strong desire for the immediacy of an improved route
- The Transport Agency continues to provide regular contact with key stakeholders through newsletters and other electronic means of communications

Option E, the Eastern option is recommended

- Option E achieves all project objectives - including safety, resilience and travel time savings
- Option E is consistent with the Transport Agency's strategic safety and resilience outcomes
- Option E is also preferred because it:
 - does not traverse areas with large and active landslides nor areas with very weak and deep alluvial plains - and in so doing does not attract residual resilience risks
 - avoids areas with relatively higher cultural sensitivity, and does not traverse areas with relatively higher ecological values
 - provides significant environmental enhancement opportunities - for example, predator control mitigation
 - has relatively lower consenting risk
- Option E is supported by the road transport sector for route security reasons
- DOC have advised that Option E is their preferred option and they wish to continue working collaboratively with the Transport Agency
- Dialogue with Ngāti Tama Runanga is positive, constructive and ongoing
- Public consultation supports a solution that delivers travel time, safety and reliability benefits; while considering effects on the environment
- A summary of the reasons why Option E is recommended is available in the Resource Centre

Option E represents the best return on investment

| Option | A | E | P | F | Z (online) |
|--------------------|----------|----------|----------|----------|------------|
| Base | \$228.0M | \$174.5M | \$211.4M | \$209.1M | \$364.4M |
| Expected | \$251.3M | \$199.6M | \$231.3M | \$234.9M | \$382.5M |
| P ₉₅ | \$293.3M | \$218.7M | \$274.2M | \$276.4M | \$430.1M |
| Benefit cost ratio | 0.4 | 0.5 | 0.4 | 0.4 | 0.1 |

Iwi land, a conservation covenant and ecological features are able to be appropriately addressed

| Item | Comment |
|------------------------|---|
| Iwi Land | <p>Option E crosses land returned to Ngāti Tama as part of its Treaty of Waitangi settlement. Consenting and acquiring this land is not feasible without the support of Ngāti Tama due to significant cultural issues with all shortlisted options.</p> <ul style="list-style-type: none"> - Dialogue with Ngāti Tama Runanga is positive, constructive and ongoing |
| Covenant over Iwi Land | <p>This land is also subject to a conservation covenant in favour of the Minister of Conservation, who will need to agree to the covenant being uplifted</p> <ul style="list-style-type: none"> - A joint DOC/NZTA working party has been established, DOC technical experts observed the multi criteria assessment workshop # 2 and engaged in review of ecological assessments |
| Ecology | <p>Some significant trees will be effected by the alignment, and a significant wetland exists adjacent to the southern end. Native birds and bats and other fauna are present</p> <ul style="list-style-type: none"> - Alignment is avoiding significant trees where possible, the wetland will be bridged experts are involved in fauna management, with positive response to predator control mitigation |

Option E delivers quantifiable safety, resilience and travel time benefits

The Option E has an expected cost of \$199.6 million (95th percentile estimate of \$218 million) and is expected to deliver approximately \$114 million of benefits, comprised of:

- Safety benefits in the order of \$32 million, effectively through bypassing the section of State Highway 3, which has associated recordings of 53 crashes in the past 10 years
- Resilience benefits in the order of \$32 million, effectively through bypassing the section of State Highway 3, which has associated recordings of 9 full road closures in the past six years some up to 17 hours long
- Travel time savings in the order of \$50 million, by providing a higher level of service to all road users, with up to seven minutes savings for heavy commercial vehicles and up to \$21M of vehicle operating costs for all vehicle classes over the design life

Option E delivers additional resilience and regional economic development benefits

- The benefit cost ratio of Option E is 0.5 - without taking into account expected wider economic benefits (which are still being assessed)
- The Project will generate additional expenditure, employment and incomes within the local New Plymouth and Taranaki economies
- Option E provides additional benefits that are not currently captured by the standard economic evaluation - these include the potential for development of tourism, support of the forestry industry, and provision of a reliable freight and lifeline route between Taranaki, Waikato and Auckland
- Together with other State Highway 3 improvements, Option E has the potential to generate additional traffic (or alternatively lead to a reduction in suppressed traffic) on the route - increasing the road user benefits and additional economic benefits from higher levels of economic growth and economic activity within the region

Next steps

- The detailed business case for the Mt Messenger Bypass project would be finalised and provided to the Transport Agency Chief Executive for approval
- An announcement that a preferred option has been identified through a multi criteria assessment process would be made in August 2017
- Following approval of the detailed business case, the negotiation process with property owners will proceed, and detailed mitigation planning prior to the submission of consent applications will commence
- Applications for a notice of requirement and resource consents are on track to be lodged with New Plymouth District Council and Taranaki Regional Council in 2017, subject to approval of the detailed business case

A robust engagement strategy has been developed

- Prior to lodgement of consent submission, the Transport Agency will re-engage with key stakeholders - including councils, transport bodies and business groups
- The Transport Agency will also re-engage with the public via website updates, newsletters, media releases and mail-outs to the database of interested parties
- Following lodgement, the Transport Agency plans to engage through stakeholder meetings to present and explain the decision-making process and outcomes, and discuss the key messages
- Key messages will include references to:
 - the Transport Agency Board's approval of the direction of the detailed business case - including the preferred option outlining its main features, expected performance indicators, and anticipated impacts on the environment and the community
 - next steps - including completion of the detailed business case, notice of requirement and resource consent applications, anticipated public participation timeframes for hearings and likely decision dates
 - future steps - including updates on design and construction timeframes

Supporting information available in the Resource Centre

- Alternatives Assessment Process Summary
- MCA 1 Outcomes Report
- Final MCA 2 and Preferred Route Report
- Investment Quality Assessment