

In Confidence

Office of the Minister of Transport

Cabinet Economic Development Committee

Investing in rapid rail in the Hamilton to Auckland Corridor

Proposal

- 1 In December 2018 I received Cabinet approval to initiate an indicative business case to consider the potential for rapid rail to help deliver the Government's aspirations for growth and economic development in the Hamilton to Auckland Corridor (the Corridor). The business case work that has been completed to date presents a strong case for further investigation of rapid rail in the Corridor. This paper provides the basis for moving to the next stage and seeks Cabinet's agreement to progress this work.
- 2 This nationally significant rail project forms part of a group of transport and land-use initiatives being implemented to deliver a shared vision for the Corridor. Rapid rail has an important role to play in this, having the potential to be at the heart of a future transport network.
- 3 Further business case work will involve building a better understanding of the economic case, timing of land-use and transport changes, and operation of rapid rail in the Corridor. Further work will also identify the extent of the benefits that it would bring to New Zealand's productivity, housing market, and reaching New Zealand's emissions reduction targets. It will also establish a framework for the funding and implementation of future investment.
- 4 The scale of this significant initiative merits continued collaboration from multiple central and local government agencies. I therefore propose that the project is taken forward through a cross-agency partnership, led by the Ministry of Transport (the Ministry). Ongoing ministerial oversight will continue, and any fiscal decisions that need to be made by the Government will be covered in future papers to Cabinet.

Relation to government priorities

- 5 Through the Urban Growth Agenda, this Government has committed to working in partnership with local government and Treaty partners to better coordinate growth and increase connectivity throughout the Hamilton-Auckland Corridor, in a way that realises its social, economic, cultural and environmental potential.
- 6 Investing in stronger intercity connectivity is central to achieving the 'Shared Spatial Intent' (known as Hei Awarua ki te Oranga) for the settlements between Cambridge-Te Awamutu and Papakura. This was produced in February 2019 by the Future Proof Partnership (the Partnership), made up of central and local government and iwi.
- 7 In particular, rapid rail would support development that is transit-oriented and better connected, enabling more sustainable patterns of land use. It would provide the transport choices that are necessary to tackle congestion, reduce emissions, build strong communities, and stimulate the economy.
- 8 This work also aligns with the Government's strategic objectives for rail identified in the New Zealand Rail Plan, and the strategic objectives in the draft Government Policy Statement for Land Transport 2021.

Executive Summary

- 9 In December 2018 I received Cabinet approval to initiate an indicative business case to consider the potential for rapid rail to help deliver the Government's aspirations for growth and economic development in the Corridor. This initial stage of work is now complete, and has highlighted the critical role that rapid rail could play in securing the future prosperity of the Corridor and its communities. There is now an opportunity to progress to the next stage of project development to help take this nationally significant project forward.
- 10 Taking the project forward will require further development of the economic case, determining the scale, extent and timing of benefits. This would include more detail around the scale of contribution that rapid rail makes to achieving the Government's priorities for more competitive urban land markets, improving housing choice, reducing emissions and relieving congestion.
- 11 Further project work will also include:
- transport planning, using a set of clear outcomes, to consider the timing of investment relative to other planned investments in the Corridor's transport network,
 - more detailed land use planning, to identify the scale, quantum and timing of development around rail nodes in the Corridor, and
 - a rapid rail concept design and operational model, and a preferred approach to funding and delivery.
- 12 To date, the work has been led by the Ministry, working in partnership with other agencies including Waka Kotahi NZ Transport Agency (Waka Kotahi), KiwiRail, the Ministry for Housing and Urban Development (MHUD) and the Treasury. This group of central government agencies, as well as the wider Partnership, agree that the cross-agency approach should continue into the next phase.

Background

- 13 Work to consider the need for rapid rail has responded to the 'Shared Spatial Intent' for the settlements between Cambridge-Te Awamutu and Papakura (Hei Awarua ki te Oranga), produced by the Partnership in February 2019.
- 14 The Hamilton-Auckland Corridor covers two of New Zealand's fastest growing cities and is an area of high natural and cultural importance and value. The parallel road and rail, as well as the Waikato River, represent New Zealand's most significant transport corridor, and a natural focus for transit oriented development.
- 15 Hei Awarua ki te Oranga represents a shared vision for the Corridor, identifying opportunities to improve access to employment, housing choice and affordability, and enhance the quality of the natural and built environment, and the vitality of communities.
- 16 Cabinet agreed to initiate an indicative business case process to consider the potential for rapid rail to help deliver growth and economic development in the Corridor [DEV-18-MIN-0280 refers] and asked for this process to consider a full range of options for rapid transit.

- 17 Over the past year, the Ministry has been working closely with its consultants, a dedicated technical working group (made up of central and local government representatives), and the Partnership to develop an interim indicative business case.
- 18 This complements other transport initiatives being taken forward by the Partnership to ensure the Corridor thrives as it grows. This includes introducing the Hamilton-Auckland 'start-up' passenger rail service – Te Huia – later this year, planning for a rapid and frequent transit network for the Hamilton-Waikato metropolitan area, and the electrification of the Auckland metropolitan rail network between Papakura and Pukekohe, which recently benefitted from funding through the Government's NZ Upgrade Programme.
- 19 Other recently completed transport and land use planning initiatives taken forward by the Partnership have placed rail/rapid transit at the core of future urban development, for example the Drury-Opāheke structure plans and Hamilton-Waikato metropolitan spatial plan.

Findings of the interim indicative business case

- 20 The work to date has been constructed around four possible scenarios for a rapid rail connection between Hamilton and Auckland (See Appendix). All of these envisage a service that connects both city centres, with intermediate calling points in northern Hamilton, southern Auckland (around Drury) and at Puhinui (for connection to Auckland Airport and Manukau city centre). In all scenarios, this fast intercity service would complement regional services serving communities throughout the Waikato.
- 21 The indicative journey times that could be achieved under these four scenarios range from 1 hour 53 minutes to 69 minutes, all of which represent a significant reduction from the journey time that is enabled by Te Huia.

There is a case for rail over non rail modes in providing intercity connections.

- 22 When considered against options for highway or other public transport interventions to reduce the journey time between Hamilton and Auckland, rail was found to make a more meaningful contribution towards achieving each of the investment objectives agreed by stakeholders. Overall, improving rail in the Corridor supports a better and more integrated transport system and offers opportunities for increasing public transport mode share, supporting urban growth, and reducing harmful emissions.
- 23 In broad terms, the business case describes how phased investment in rapid rail in the Corridor is needed to:
 - significantly reduce journey times and improve journey reliability,
 - better connect the Corridor's metropolitan hubs, improve access and strengthen the economic interactions between the two cities to support the metropolitan areas to reach their full potential and harness the benefits of agglomeration,
 - encourage increased rail mode share and reduce the impact that existing intercity travel has on emissions, and
 - reduce the number of deaths and serious injuries resulting from road crashes.

- 24 Improved access and transport capacity in the Corridor would increase confidence in land and development markets. Investment in rapid rail would also help make room for growth by unlocking land for housing, and contribute to the objectives of the Urban Growth Agenda (UGA).

The costs and benefits of rapid rail investment need further investigation

- 25 Further project work will seek to understand how rapid rail can complement and integrate with other transport and land-use initiatives in the Corridor. The scale of contribution that rapid rail can make in achieving the objectives of the UGA, in particular more competitive land markets and improving housing affordability, will depend on the degree of its integration with other initiatives in the Corridor.
- 26 Rapid rail needs to be aligned with decisions relating to land use and zoning changes, and the delivery of complementary transport investments. This alignment will help distribute and maximise the benefits rapid rail could have for the Corridor. However, more detailed modelling and design investigations are needed to understand the scale of benefits.
- 27 Capturing the benefits of rapid rail will require new and ambitious approaches to planning for stations, interchanges and surrounding land use activity that unlock the efficiency and productivity potential of growth in the Corridor. These will be provided as part of the package of work to further enhance the case for rapid rail.

Work is needed to align the indicative business case with other transport and land-use initiatives in the Corridor

- 28 Rapid rail is one of many potential projects that support the delivery of Hei Awarua ki te Oranga. As work is progressed on potential projects in the Corridor, Government and the Partnership are able to make decisions about priority and staging of investment. A key observation of the indicative business case is the importance of aligning the work with other transport and land-use planning initiatives within the Corridor.
- 29 Such alignment will help to inform decisions on the timing of investment in rapid rail, relative to other more localised infrastructure projects. This in turn will support future decisions on the broader implications that investment in rapid rail could have across the Government's overall transport and infrastructure portfolio.
- 30 Rail investments would result in a general uplift in land values, stimulating land use change and helping deliver the priorities for development in Hamilton-Waikato and south Auckland. Land within proximity of calling points in central and northern Hamilton is likely to experience the greatest land value uplift under the faster rail scenarios, and future project work will need to align rail investment with the implementation of the Hamilton-Waikato Metro Spatial Plan.

Taking forward the vision for rail and the Corridor

- 31 Further project work is needed to establish a basis for future decisions around the timing, design, funding and financing of rapid rail. This would inform and be informed by other transport and land-use initiatives in the Corridor. This represents good practice in other parts of the system, and a business case that is put together in this way is more likely to show a compelling case for investment.

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- 32 Further project work would include work to develop the economic case for rapid rail. This would further quantify the scale, extent and timing of the benefits, including increased competition in urban land markets, improved access, housing choice and affordability, emissions reductions and congestion relief. More detailed land use planning would also be undertaken to identify the scale, quantum and timing of development around the nodes that may be served by rapid rail.
- 33 This package of work is beyond the role and mandate of any one agency across New Zealand's urban development and transport system. As indicated, my preference is for the project to be taken forward on the basis of a cross-agency partnership with leadership from the Ministry.
- 34 Further project work will also investigate further extending a rapid rail line to Tauranga to understand the implications this would have for the Hamilton to Auckland section, land use and regional economic development. This will be a separate indicative business case but will build off the Hamilton-Auckland section business case.
- 35 This arrangement will align more detailed project development with broader policy considerations, including consideration of funding and delivery models, spatial planning, and transport investment priorities. I consider that such an approach is necessary in order to:
- ensure that the project is developed in line with ministerial priorities,
 - ensure the rationale for investment is compelling and comprehensive,
 - develop a funding and delivery framework for the project that;
 - reflects its likely scale, cost and timeframes, and
 - aligns with benefits at the local, regional and national scale, and
 - integrate rapid rail into the work of the wider Partnership.
- 36 The Ministry will support this work as the transport system leader, and will advise me on policy considerations relevant to delivering a project of this size and complexity.

Financial implications

- 37 There are no financial implications for this proposal at this stage. The funding necessary to complete the next stages of the project's development will be determined by the Ministry, working with partners in the Corridor.
- 38 Future fiscal decisions relating to either the development, implementation or operation of a rapid rail initiative will be subject to future decisions by Cabinet.

Consultation

- 39 In preparing this paper, the Ministry has been working closely with MHUD, the Treasury, KiwiRail and Waka Kotahi.
- 40 The Ministry has consulted with Kāinga Ora, the Department of Internal Affairs, Te Arawhiti and Te Puni Kōkiri on the content of this paper. We will continue to engage

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with these agencies, concurrent with targeted engagement with Treaty partners and local government, to support the inclusion of views of the communities involved.

- 41 The Ministry has engaged with central and local government partners, and Treaty partners in the development of the current stage of the business case. MHUD, the Treasury, KiwiRail and Waka Kotahi support progressing to the next stage of the project.

Communications

- 42 The Ministry will share the outcome of this proposal with its partner agencies, including the Ministry of Housing and Urban Development, the Treasury, KiwiRail and Waka Kotahi.

Proactive Release

- 43 I intend to proactively release this paper within 30 business days of final decisions being made by Cabinet.

Recommendations

The Minister for Transport recommends that the Committee:

- a) **note** that in December 2019, Cabinet agreed to initiate a business case process to consider the potential for rapid rail to help deliver the Government's aspirations for growth and economic development in the Hamilton-Auckland Corridor [DEV-18-MIN-0280 refers];
- b) **note** that the need for a business case responded to the 'Shared Spatial Intent' for the settlements between Cambridge-Te Awamutu and Papakura;
- c) **note** the progress that has been made on other related transport and land use initiatives in the Hamilton-Auckland Corridor and that these have placed rail/rapid transit at the core of future urban development;
- d) **note** that the interim indicative business case has confirmed the strategic value of rapid rail in the Hamilton-Auckland Corridor, and its role in shaping urban development and economic growth;
- e) **note** that the scope of the priorities for the next stages of project development include further project analysis, refinement of the alignment with other Corridor initiatives, investigation of a separate Indicative Business Case extending rapid rail to Tauranga, and stakeholder engagement;
- f) **note** there are no financial considerations at this stage;
- g) **agree** that the Ministry of Transport will initiate a process to develop the next stages of project development in greater detail, working with MHUD, the Treasury, KiwiRail, Waka Kotahi and Treaty partners in the Corridor.

Authorised for lodgement

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Hon Phil Twyford
Minister for Transport

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Appendix

Findings of the Interim Indicative Business Case for Hamilton to Auckland Rapid Rail Context

- 1 The purpose of this business case has been to:
 - develop and define a short list of fast rail scenarios for the Hamilton to Auckland Corridor
 - assess the potential transport benefits in accordance with Waka Kotahi NZTA's Economic Evaluation Manual to enable a comparison with potential investment scenarios
 - assess the potential increase in the value of residential, commercial and industrial land in proximity to likely stations along the route
 - assess the potential land use change within the catchment of each station location for each short-listed scenario.

- 2 The business case is considered 'interim' as it is intended to provide insights into the value of faster rail journey times and does not explore a full range of indicative cost and benefits associated with alternatives to rail. This interim business case does not provide information on the commercial, financial and management cases that typically explore the commercial viability, financial affordability and achievability associated with likely investment ranges. This would be subject to future work.

Rapid Rail Scenarios

- 3 Four rail scenarios were selected for evaluation. The scenarios reflect a step-change over the anticipated journey times provided by the start-up service (approximately 2hr 30mins) and aim to be competitive with car journey times between the two cities.

Scenario	Train max. speed (Electric)	Estimated city to city journey time	Estimated Capital Costs (\$m)	Estimated Operating Costs (\$m)
A. Electrification on existing corridor	110 km/hr	1hr 53mins	2,157	725
B. Electrification and upgrade existing corridor to support faster train speeds	160km/hr	1hr 28mins	5,000	725
C. New narrow gauge corridor between southern Auckland and northern Hamilton	160km/hr	1hr 19mins	12,157	725
D. New standard gauge corridor between Auckland and Hamilton	250km/hr	1hr 9mins	13,627	798

Overall Findings

- 4 The overall findings from the business case are that:
 - fast rail in the Hamilton to Auckland corridor warrants further investigation and analysis,

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- increased connection between Waikato and Auckland together with a better connected Hamilton-Waikato metro area would enable both cities to benefit economically,
- a 'Transit-Oriented Development' (TOD) approach should explore compact development opportunities around the station nodes,
- the analyses show land within proximity of Hamilton city centre and a northern Hamilton stop is likely to experience the greatest land value uplift under the faster rail scenarios, supporting the delivery of much needed growth capacity,
- any significant enhancement in journey time requires a high level of investment,
- all scenarios are expected to attract ridership below the threshold level of what is needed for a Benefit Cost Ratio (BCR) of 1.0, however changes in land value could stimulate additional growth within the station catchment areas and improve the BCR. Consideration of the BCR of the scenarios should be in the context of the combined impact this and other planned land use and transport interventions will have in the Corridor, and
- complementary initiatives already underway in the Papakura/Pokeno cluster (Supporting Growth) as well as in the Hamilton-Waikato metro cluster (Metro Spatial Plan) should explore additional measures to support land use scenarios (especially through TOD scenarios) that are well-integrated with a fast rail corridor.