

NZ TRANSPORT AGENCY BOARD PAPER

Meeting Date	19 March 2020
Title of Paper	Ara Tūhono Pūhoi to Warkworth ^{Out of scope} Outcome of Tolling Assessments and accompanying recommendations
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Purpose

This paper seeks endorsement of the recommendations whether to toll Ara Tūhono Pūhoi to Warkworth ^{Out of scope} based on the tolling assessments that have been completed.

Recommendations

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

- **Recommend** to the Minister of Transport that Ara Tūhono Pūhoi to Warkworth to be tolled
- ^{Out of scope}

Strategic Relevance

Tolling a road is a way for Waka Kotahi NZ Transport Agency to collect or supplement funding for roading infrastructure and is legislated for under the *Land Transport Management Act, 2003* (LTMA, 2003). It is Transport Agency policy to assess all new state highway links for tolling feasibility.

The assessment weighs the potential benefits netted by revenue collection, against the possible impacts to deliver outcomes under the Government Policy Statement for Land Transport (GPS), the original project intent, and other requirements under the LTMA, 2003.

The decision whether to recommend tolling to the Minister of Transport sits with the Board; however, the final decision to progress a tolling recommendation into an Order in Council sits with Cabinet, and this may include permission to publicly consult on the decision.

Background

Tolling

A toll, according to Section 46 of the LTMA, 2003, may be established for the purposes of the planning, design, supervision, construction, maintenance, or operation of a new road.

The revenue from a toll is placed into the National Land Transport Fund (NLTF), and must be applied to the costs of the road from which it was collected.

Historically, the Transport Agency has only utilised tolling to advance the build of a new road. New Zealand currently has three toll roads: Tauranga Eastern Link (Tauranga), Takitimu Drive (Tauranga), and Northern Gateway (Auckland).

Tolling assessment

To assess a road for tolling suitability, traffic modelling is used to determine the performance of a (potential) toll road against a set of criteria. The assessment is designed to compare a potential tolled future state, against the un-tolled counterfactual to identify possible benefits and dis-benefits, while ensuring all requirements of the LTMA, 2003 are met.

The criteria used to assess Ara Tuhono Pūhoi to Warkworth Out of scope are:

1. The road is new, or a significant upgrade;
2. A feasible, free alternative route is available;
3. Not less than 10,000 vehicles are likely to travel the road per day (indicated in World Bank studies to be an early indicator to determine whether a toll is financially viable);
4. Tolling infrastructure can be installed in a manner that is cost-effective to the project and reasonable; And within time periods required by the LTMA, 2003;
5. The toll rate is reasonable and does not result in a traffic volume change that unduly impacts the wider network;
6. Tolling infrastructure costs no more than 20% of anticipated revenue;
7. Estimated tolling revenue will result in a meaningful contribution to project and/or road costs;
8. Tolling delivers value for money and public good to New Zealanders and the Transport Agency;
9. Tolling does not significantly reduce or impact project outcomes;
10. Tolling is not contrary to the GPS priorities.

Pūhoi to Warkworth

The Pūhoi to Warkworth project is the first stage of the Ara Tūhono – Pūhoi to Wellsford. Pūhoi to Warkworth will extend the four-lane Northern Motorway (SH1) 18.5km from the Johnstone's Hill tunnels to just north of Warkworth. It will be connected to the Northern Gateway toll road, established via Order in Council in 2005, with no on-ramps northbound from Pūhoi, and no off-ramps southbound from Warkworth.

The motorway is being delivered under a Public Private Partnership (PPP), with the Transport Agency making payments to the private partner of the PPP for the period 2022-2046 [*Refer Board paper 2017-07-1158*]. The decision to deliver the project as a PPP does not preclude tolling.

The motorway is expected to be open to traffic in October 2021.

Out of scope

Key issues

Recommendation One: Ara Tūhono Pūhoi to Warkworth is recommended for tolling

The assessment for Pūhoi to Warkworth indicated a high degree of anticipated revenue benefit, coupled with minimal dis-benefits to the network and the public. For this reason, the Transport Agency considers it appropriate to recommend Pūhoi to Warkworth for tolling.

Summary Assessment

Pūhoi to Warkworth offers investment returns comparable to other New Zealand toll roads and suitable for offsetting a portion of the Transport Agency's PPP payments (Attachment One). Key benefits are:

1. Toll revenue of \$361- \$547 million net revenue over 25 years

Over the 25-year life span of the PPP, it is estimated that tolling will deliver \$361- \$547 million net in revenue, with an anticipated revenue at the 50th percentile of \$447 million (translating to \$108 - \$161 million Net Present Value (NPV), with a 50th percentile of \$132 million).

Should the Transport Agency seek to toll for the 35-year life span as per its previous toll roads, tolling is estimated to deliver \$673 -1,044 million net revenue (\$134 – 201 million NPV)¹.

2. Toll revenue represents 16-25% of the project cost (35-year comparison)

When placed in a 35-year context, toll revenue from Pūhoi to Warkworth will contribute an estimated 16-25% towards the total \$772 million cost of construction. This is in line with the performance of existing New Zealand toll roads, where toll revenue contributes 100%, 38% and 22% of Takitimu Drive, Northern Gateway, and Tauranga Eastern Link, respectively.

Section 9(2)(b)(i)

¹ All revenue estimates are net – i.e. – excluding GST, transaction costs

²

Section 9(2)(b)(ii)

Section 9(2)(b)(ii)

4. 68% return on approximately [Section 9(2)(i)] investment in tolling infrastructure

[Section 9(2)(i)]

Additionally, the anticipated toll revenue reflects a 68% return on the investment to purchase and install tolling infrastructure.

5. Low level of dis-benefits incurred

The Pūhoi to Warkworth project anticipates a 23% increase in safety benefits and a reduction from 22 injury crashes to 17 in one year (based on 2038 figures). Tolling is anticipated to reduce these safety benefits by 3% due to people using the alternate route, increasing the number of injury crashes by 0.7.

When considering this within the social cost shift of the 3% reduction, this can be represented by an estimated annual disbenefit or social cost shift of \$1.9 million (based on modelled 2038 figures). This figure varies over time due to crash rates and traffic volumes.

Due to the connection to the Northern Gateway Toll Road, road users will need to decide early when travelling southbound as to whether to use the tolled or alternative free route. This is due to no off-ramps being present between Warkworth and Northern Gateway. Clear signage and communication regarding this will therefore be required.

Risks

1. Potential impacts to the PPP

The PPP contract does not preclude tolling, and it is possible to deliver tolling either within the contract, or outside of it. The decision to toll must not result in delays to the project, and/or unintended costs, arising from penalties linked to the 28 October 2021 opening date [Section 9(2)(b)(i)] or changes to the current road design.

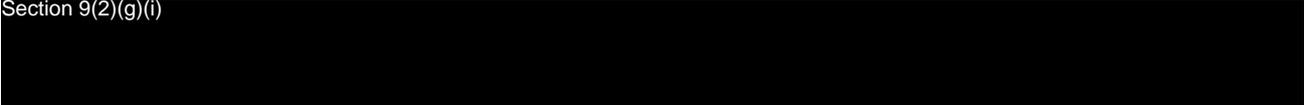
Under the LTMA, 2003 tolling must occur on a new road, where a road is considered new until it is opened for use. However, although the Order in Council must be established before the road is opened, the installation of the tolling infrastructure can be delayed to a degree.

[Section 9(2)(b)(ii)]

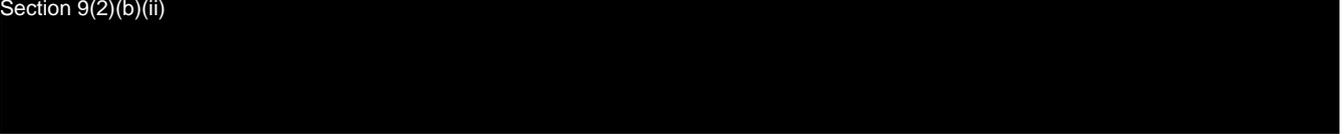
[Section 9(2)(g)(i)]

⁴ Infrastructure includes a pre-implementation and implementation for a new mainline gantry and roadside equipment similar to TEL. A tubular gantry structure would reduce this cost

Section 9(2)(g)(i)



Section 9(2)(b)(ii)



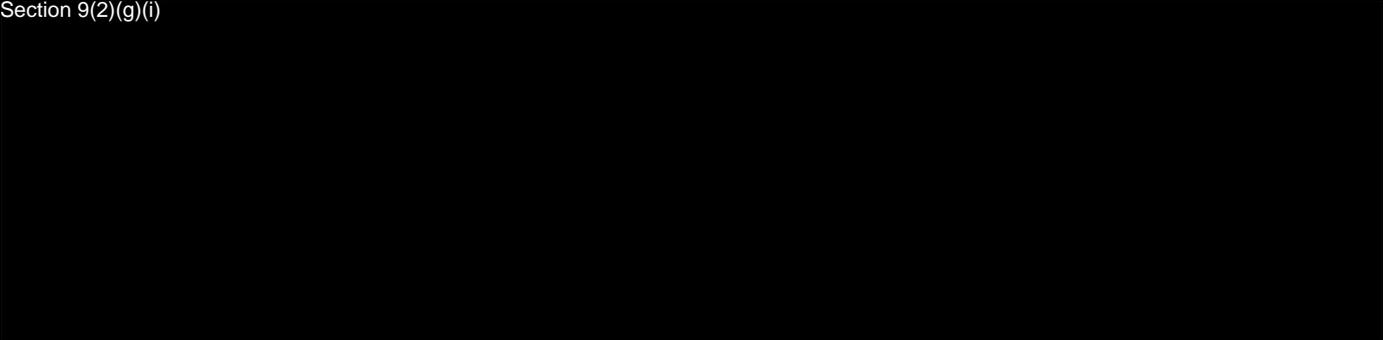
Section 9(2)(g)(i)



3. Consultation

Adequate public consultation is a requirement under the LTMA, 2003. Public consultation would occur from April - July 2020. The Tolling team is working with the Project team to develop an effective consultation process.

Section 9(2)(g)(i)



⁵ Terje Tretvik; *End of 15 years of urban road user charging in Trondheim, Norway -What now?*, 2007: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.611.2213&rep=rep1&type=pdf> – January 2020

Section 9(2)(g)(i)



Next steps

Should the Board agree to recommend Ara Tūhono Pūhoi to Warkworth for tolling, a full consultation document will be created prior to the drafting of a briefing to the Minister. This briefing will advise the Minister of the Board's recommendation, and request agreement for the Transport Agency to advance to public consultation. The Minister will be provided with a proposed consultation document as part of this briefing.

Further investigations will occur into mechanisms for installing the tolling infrastructure.

Out of scope



Health & Safety, Customer & Other Stakeholder and Environmental Impact

Pūhoi to Warkworth

The impact of this decision is considered to be neutral in terms of health and safety, the public and other stakeholders, and the environment, when the following are considered in balance:

- The low reduction in health and safety benefits tolling may induce;
- The potential response the public may have to the tolling proposal;
- The minor but positive environmental benefits tolling may create;
- The anticipated revenue tolling is considered to net;

Out of scope



Related Documents

Attachment One

Pūhoi to Warkworth Tolling Assessment Summary

Out of scope

