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Transmission Gully Project Assessment of Environmental Effects report

Prepared by Beca in association with Incite and SKM

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Report prepared by Beca



in association with Incite and SKM





for the NZ Transport Agency and Porirua City Council





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Executive summary

Introduction

The Transmission Gully Project (the Project) is being promoted by the NZ Transport Agency (NZTA) and Porirua City Council (PCC). The Project consists of three components:

- The Transmission Gully Main Alignment (the Main Alignment) involves the construction, operation and maintenance of a State highway formed to an expressway standard from Linden (Wellington City) to MacKays Crossing (Kapiti Coast). The NZTA is responsible for the Main Alignment.
- The Kenepuru Link Road involves the construction, operation and maintenance of a limited access State highway connecting the Main Alignment to the existing western Porirua road network. The NZTA is responsible for the Kenepuru Link Road.
- The Porirua Link Roads involves the construction, operation and maintenance of two local roads (the Whitby Link Road and the Waitangirua Link Road) connecting the Main Alignment to the existing eastern Porirua road network. PCC is responsible for the Porirua Link Roads.

The NZTA and PCC are lodging notices of requirement for designations (NoRs) and applications for resource consents for their respective components of the Project under the relevant provisions of the RMA. The Project is a proposal of national significance and has been lodged with the Environmental Protection Authority (EPA). The NZTA and PCC request that the Minister for the Environment makes a direction that the Project be referred to a board of inquiry for determination.

Background to the Project

The Project has a long history with the concept of an inland alternative route for SH1 between Wellington City and the Kapiti Coast being discussed for many decades. A number of strategic studies and investigations have concluded that an inland alternative for SH1 is preferable to an upgrade of the existing coastal route for SH1 as it will provide greater benefits in terms of travel time savings, safety and route security. Accordingly, the Project is a key component of a number of national, regional and local transport strategies, policies and plans.

Benefits of the Project

The Project will provide the following benefits:

- improved route security and resilience of the Wellington Region's State highway network;
- improved safety performance as compared to the existing State Highway 1 between Linden and MacKays Crossing;
- reduced travel times and improved travel time reliability along key routes and increased accessibility across many parts of the Region's road network;

- reduced severance for existing SH1 coastal communities;
- economic benefits resulting from travel time savings, improved trip time reliability and increased accessibility to and throughout the Wellington Region; and
- improved accessibility to eastern (the Porirua Link Road) and western (the Kenepuru Link Road) Porirua.

Statutory context

The NZTA has lodged four NoRs for the Main Alignment across four districts; Kapiti Coast District, Upper Hutt City, Porirua City and Wellington City. The NZTA has lodged two NoRs for the Kenepuru Link Road in the districts of Porirua City and Wellington City. PCC has lodged two NoRs for two other Link Roads within Porirua City. Applications for resource consent have also been lodged.

The consenting authority (which may be a Board of Inquiry) who considers the NoRs and applications for resource consent must have regard to various matters, including the relevant provisions of national, regional and district level planning documents, the alternatives, reasonable necessity, as well as other matters.

Description of the environment

The Project mainly traverses through rural land. However, the southern end of the Project area lies in the vicinity of the residential suburbs of Whitby, Waitangirua, Cannons Creek, Ranui Heights, Linden and Tawa. Whitby is one of the region's most affluent suburbs, while Waitangirua and Cannons Creek are two of the poorest suburbs.

The Project area is highly modified and consists almost entirely of pasture. Within this, however, there are pockets of both native and exotic (mainly forestry) vegetation. The highly modified nature of the area means that is holds little ecological value in terms of providing habitat for terrestrial species. The Project traverses nine hydrological catchments which are part of four different watersheds. The ecological value of the streams in these catchments varies from high to low but all streams are in highly modified catchments. Five of the catchments (approximately 65% of the length of the Project area) drain into the Pauatahanui Inlet. This Onepoto Arm is of significant ecological value, supporting a wetland and estuarine ecosystem.

A range of network utilities are present throughout the Project area, the most significant being a 110kV electricity transmission line (from which the Project takes its name).

An assessment of the Project area has concluded that there are relatively few archaeological, historical or cultural features of note.

Description of the Project

The Main Alignment has been designed to an expressway standard, which comprises a minimum of four lanes with continuous median separation. Direct access to and from the Main Alignment will not be permitted, except via three new interchanges and the northern and southern tie-ins. At all interchanges the Main Alignment will go over the connecting roads. Along some parts of the Main Alignment where grades will be steeper, crawler lanes will be provided for slow moving vehicles (e.g. heavy vehicles). The Kenepuru Link Road has been designed as a State highway with strictly controlled direct access. The Porirua Link Roads have been designed to local road standards.

The Project involves approximately 112 stream crossings by either bridges or culverts. All bridges have been designed so there are no piers in the wetted stream channel. Culverts and bridges will include necessary erosion protection. The Project will require the permanent realignment of approximately 6.5km of streams.

A range of options are proposed for the treatment of cut slope and fill embankments. The three main options are reinforced soil embankments, mechanically stabilised earth walls (typically around bridges) and soil nail walls. Indicative landscaping has been developed for finished cut and fill slope faces. Stormwater runoff will be collected and treated using wetlands and proprietary treatment devices.

Enabling works will involve works to the existing electricity transmission lines (the Transmission Line Relocation Project) and the formation of construction access tracks and site compounds. The main site compound will be located next to the proposed SH58 Interchange and will be accessed directly from SH58. This will contain a concrete batching plant.

Construction will be staged with a number of crews working simultaneously on different fronts. It is expected that there will be up to 12 earthworks crews and eight bridge crews working during peak construction. Comprehensive erosion and sediment control measures will be used for all earthworks and for works in and around streams. Construction will involve approximately 6.3M m³ of cut material and approximately 5.8M m³ of fill material. Potential disposal sites for surplus fill have also been identified.

Construction of the Project is expected to take approximately six years. Construction will cause minimal disruption to the existing State highway network with works only needed to the existing State highway for the northern and southern tie-ins of the Main Alignment and around SH58 at Pauatahanui.

Consideration of alternatives

A consideration of alternatives is required under the provisions of the RMA; in relation to the NoRs and in relation to some aspects of the activities for which resource consent is sought.

An extensive option evaluation exercise was undertaken during the scheme assessment phase and this resulted in some fundamental alignment decisions that provide environmental (particularly ecological) benefits over the existing designated alignment. In particular, through the Te Puka and Horokiri valleys and Battle Hill, the road alignment was shifted to the west to reduce the impact on streams and terrestrial habitats. During the scheme assessment, the interchange connecting to eastern Porirua (via the Porirua Link Roads) was also relocated in the design to enable an additional local road connection from Whitby (rather than just from Waitangirua).

During the most recent engineering and environmental assessment phase, further design refinements have been made. Relatively minor alignment changes have avoided the loss of some features, such as a significant area of native bush through the Wainui Saddle and a heritage feature (WWII brick fuel tank) at the bottom of the Te Puka valley.

Consultation and engagement

Consultation has been undertaken in accordance with recognised good practice. Consultation during this phase of the Project has involved engagement with local, regional and national stakeholders. Consultation has involved a number of methods, as appropriate, including one-on-one meetings, group meetings, public open days, newsletters and online material.

On-going consultation and communication with the relevant regulatory agencies has also been undertaken as part of the preparation of consenting documentation. Consultation and engagement with tangata whenua (Te Runanga o Toa Rangatira Inc) has been undertaken by the NZTA, following on from previous engagement during the development of the Project design. Te Runanga o Toa Rangatira Inc (Ngati Toa) has prepared a cultural impact assessment for the Project.

Assessment of effects on the environment

In accordance with best practice and the relevant provisions of the RMA, an Assessment of Effects on the Environment (AEE) of the Project has been carried out. The process built on relevant environmental assessment information, from the scheme assessment (Phase 1). The environmental assessment undertaken for Phase 2 has been further informed by the work of a wide range of engineering and environmental specialists working together on the design and assessment of the Project. The AEE concludes that the Project will have a number of positive benefits as well as some actual or potential adverse effects (particularly during construction). The latter will vary in significance, scale (local, regional and national), intensity and duration.

Traffic and transport

The Project will have significant positive transport effects at a local, regional and national scale, including:

- improved route security and resilience for the region's State highway network
- improved safety and reduced crash risk;
- significant travel time savings;
- more efficient freight movement and associated economic benefits;
- improved connections to regional freight hubs, including the port, airport and distribution centres; and
- improved access to eastern Porirua (Porirua Link Roads) and western Porirua (Kenepuru Link Road).

During construction of the Project there will be some potentially adverse traffic effects, including delays or inconvenience, arising from increased heavy construction traffic using local roads. These effects can be effectively managed through traffic management plans which include means to manage such effects.

Land use and property effects

The main property effects of the Project can be separated into three broad categories:

- properties with land that is directly required (either the whole or in part) for the Project;
- land with an easement or other property right (including rights of way and water rights, for example) that is directly affected by the Project; and
- properties within close proximity to the Project.

The land holdings range from Crown Land, Council owned land including road and reserves, and private land. By far the largest land requirement is land already owned by the Crown for roading purposes. There are some properties where part acquisition will be required. All property owners whose land is directly affected have been consulted and are aware of the property required. There are a number of instances where the Project will affect other property rights such as physical access to a property, forestry logging accesses or a water supply arrangement. It is considered that effects on other property rights have been well identified through both property agreements and consultation.

Properties within close proximity to the route that have been identified as being subject to or particularly sensitive to effects have been identified through the technical studies. Actual and potential effects on these properties have been identified in relation to specific technical areas and appropriate mitigation has been devised. Actual and potential (including perceived) effects on property values is not considered to be a relevant consideration under the RMA. Effects on amenity values are a relevant consideration, and those that are affected by the Project are considered through assessment of other actual and potential effects including noise, landscape and access.

Network utilities

The Project will affect a number of existing and proposed network utilities within the Project area. This will require the protection and/or relocation of these utilities. Largely these works will be undertaken as enabling works for the Project. The most significant network utility affected is the electricity transmission line which runs much of the length of the Main Alignment. The NZTA, in liaison with PCC, has worked closely with the relevant organisations and are jointly confident that all adverse effects on network utilities will be able to be managed appropriately.

Noise and vibration

The rural and sparsely populated nature of the majority of the Project area means that specific noise and vibration mitigation is not required for most of the Project.

Construction noise will generally be within the limits of NZS 6803:1999 and where construction works are proposed in close proximity to sensitive receivers (such as residential dwellings), a construction noise and vibration management plan is proposed which outlines protocols for engaging with affected parties and processes or measures which will minimise noise and disruption. Consequently, the AEE concludes that any potential adverse noise effects arising from construction will be able to be adequately managed.

Based on an acoustics assessment, a small number of areas potentially requiring specific noise mitigation were identified and assessed using the process set out in NZS 6806:2010. Proposed mitigation consists of noise barriers of varying types, and the modification of one building. With this mitigation in place, the effects of noise will be adequately mitigated.

The noise and vibration assessment concludes that any potential vibration effects, both from construction and operation of the Project, will be such that no specific mitigation will be necessary.

Air quality

Construction of the Project (particularly the earthworks and concrete batching) has the potential to generate dust which could have an adverse effect on air quality. This potential effect can be mitigated to an acceptable level through dust management measures, outlined in the construction air quality management plan.

The air quality assessment concludes that on a regional basis, there will be an overall reduction to public exposure to vehicle emissions on completion of the Project. There will be no material adverse effects on air quality arising from the Project's operation and hence, no mitigation is considered necessary.

Contaminated land

The majority of the existing areas identified as currently contaminated do not present a significant risk to human health or ecology. The highest risk areas are the portions of MacKays Crossing where the potential for unexploded ordinances (UXO) has been identified, the identified soil contamination at the Porirua Gun Club and former nursery and the potential presence of asbestos in building materials.

Contaminated land has the potential to affect human health and ecology during construction and operation of the Project. This potential effect can be avoided through remedial work and by placing a road on the contaminated soils and essentially capping the contamination. The soil will be excavated as part of construction and the upper layer of soil will be mixed with deeper layers that are not impacted by contaminants, essentially reducing concentrations of contaminants in the soil. The adverse effects associated with UXO can be avoided through investigation, careful excavation and management/ disposal methods, and by observing appropriate protocols in the event of accidental UXO discovery. Remedial action may also be required.

Implementation of these measures, through the draft Contaminated Land Management Plan (CLMP), will enable any adverse effects arising from contaminated land during construction and operation of the Project to be appropriately managed.

Hydrology

The Project will result in changes to existing hydrology from land use changes and from changes to stream morphology. Hydrological and hydraulic modelling has been undertaken to inform the design and environmental assessment process. As a result of this closely integrated process, the majority of potential adverse hydrological affects have been avoided through refinements to the road and drainage design.

There are small changes in flood risk in Q100 events (i.e. extreme weather events) on some properties. In other locations, changes in flood flows are negligible and in some instances the Project results in a small reduction in downstream flood risk by containing and managing flows.

The stream realignments for the Project and the stream crossings (bridges and culverts) have been assessed in the AEE and will result in negligible changes to hydraulic performance of the affected stream. This potential effect is largely able to be mitigated by constructing realigned streams as close as possible to their existing form. While this reconstruction is primarily being done for ecological reasons, it also minimises changes to hydraulic performance.

Water quality

The construction and operation of the Project has the potential to adversely affect water quality in streams and the marine environment. Construction of the Project will involve major earthworks and has the potential to increase sediment run off to streams and the coast. Operation of the Project has the potential to increase contaminant levels in streams and the marine environment associated with stormwater runoff from road surfaces.

Existing freshwater quality in streams is variable. Virtually all streams affected by the Project have elevated nutrient levels, which is typical of the predominantly pastoral land use through most of the Project area. Levels of turbidity and metals are generally within guideline values with the exceptions being the more urbanised catchments of Kenepuru and Porirua. Water quality within Porirua Harbour varies but contaminant levels (zinc, copper and lead) are typically elevated around stormwater outfalls in the Onepoto Arm. DDT concentrations are elevated in the Porirua Harbour, which is likely to be as a result of historical land uses.

Land use within catchments draining into the Harbour also influences sediment entering the Harbour. Pastoral farming and forestry activities both result in high levels of sediment reaching the harbor. Significantly less sediment runoff is generated from native forested land.

A high level of erosion and sediment control will be used to manage sediment from the construction of the Project entering waterbodies. High rainfall events could cause an increase in sediment reaching the streams and the Harbour. Increases in suspended sediment will occur but will mimic what currently occurs during these events and will not cause any lasting adverse effects. Increases in sediment deposited in streams from these events will be minimal. For most events, the additional sediment entering the Harbour will deposit in areas where high levels of sediment deposition is already occurring and therefore is likely to have minimal impact. An exception to this is in when specific combinations of wind and rainfall events occur when large areas of earthworks are in progress. If all these things occur together, deposition is predicted in the intertidal zones near the coast.

All stormwater runoff from finished road surfaces will be treated. As a result, contaminants entering the Wainui Stream mouth and Onepoto Arm will decrease, providing a positive effect. Contaminant levels entering the Pauatahanui Inlet will mostly remain unchanged, with the exception of total petroleum hydrocarbons which will increase. This increase will not cause conspicuous oil or grease in the water or any change in odour.

Terrestrial ecology

The Project traverses highly modified land, which has mainly been converted to pasture with relatively few areas of native vegetation remaining. Within this modified landscape populations of indigenous fauna are small and species of conservation interest are restricted to specific sites, typically associated with fragments of native vegetation.

A conservative approach has been taken to quantifying the loss of vegetation and terrestrial habitats and to developing mitigation measures. Mitigation sites have been identified for retirement and revegetation, including the early retirement sites established in recent years by the NZTA. The sites have been chosen for the range of potential ecological and hydrological benefits they can provide.

Adverse effects of construction can be adequately addressed by mitigation in these areas, and will include retirement from farming and replanting in some areas. The retirement and revegetation of land above the Project alignment will provide additional benefits such as reduced erosion, and improved water quality.

There will be some potential effects on the habitat of terrestrial fauna. This will be minor as they can be effectively managed by the translocation of some species (e.g. lizards) and/or habitats (e.g. logs and boulders providing *Peripatus* habitat) and by careful construction management methods.

Freshwater ecology

The Project involves works in nine separate catchments across four watersheds. The streams in these catchments currently provide varying qualities of habitat for freshwater species, although all are in heavily modified catchments and the habitat values and species composition are reflective of this.

During construction, sediment runoff from the earthworks has the potential to adversely affect freshwater habitats and species. A high level of erosion and sediment control measures are proposed and based on sediment modelling, levels of sediment entering streams during normal conditions are predicted to be low and the ecological impact of this is assessed to be negligible. As currently occurs, during, and immediately after high rainfall events, sediment levels in streams will rise. During the construction period the additional earthworks area for the Project will increase sediment levels in streams between 1 to 30% (in a Q2 event). The AEE concludes that given current experience this will not be considered to be ecologically significant because:

- freshwater species in these streams are currently able to tolerate temporary increases in sediment levels higher than this; and
- by definition, these events coincide with increased stream flows and the hydraulically active nature of the streams (e.g. they are in relatively steep terrain) means that sediment is rapidly transported downstream, rather than being deposited on stream beds (where greatest effect occurs).

The long term operation of the Project will require the modification of streams in eight of the nine catchments. Primarily this modification involves construction of culverts and bridges and the realignment of parts of streams as part of the hydraulic design of the Project. The AEE acknowledges that while considerable efforts have been made to reduce the degree of modification to streams, this cannot be avoided completely. The adverse effects on freshwater ecology resulting from stream works can be remediated and/or mitigated by restoring and protecting other streams to enable no net loss of freshwater habitat. In total, approximately 10.5km of streams will be affected (through stream realignment and/or armoring) and this will require the restoration and protection of approximately

26.5km of streams to remedy and mitigate this. As part of the overall mitigation package of the Project, approximately 30km of streams will actually be restored and protected, meaning the Project will result in a net gain in freshwater habitat across the Project area. This positive effect will be on-going as the areas retired from pasture (predominantly in the Te Puka and Horokiri catchments) are to be re-planted in native vegetation.

Stormwater runoff from the road surfaces will be treated to a high standard and will have negligible, if any, impacts on freshwater ecology against the anticipated background contaminant loading.

Marine ecology

Although the Project does not involve works or the discharge of contaminants into the coastal marine area, the marine environment is the ultimate receiving environment for sediment laden water from construction of the Project and stormwater runoff from the road surfaces from the operation of the Project. There are two marine receiving environments of relevance:

- the Kapiti Coast, comprising the mouths of the Wainui and Whareroa Streams; and
- the Porirua Harbour, comprising the Pauatahanui Inlet and the Onepoto Arm.

The mouths of the Wainui and Whareroa Streams are dynamic environments on the open coast. In contrast, the Porirua Harbour is more enclosed, accessible to the open coastal by a narrow 100m channel. Due to this and the fact that the Harbour is the receiving environment for approximately 80% of the discharges associated with the Project, ecological investigations have focused more (but not exclusively) on effects on the Harbour ecosystem.

Construction of the Project will result in increased levels of sediment entering the Harbour. Increased levels of suspended sediment as a result of high rainfall events are assessed to have negligible ecological effects. There are two rain events that, if they coincide with certain wind conditions, where deposited sediment on the seabed is predicted to have (Onepoto Arm) and (Pauatahanui Inlet) adverse ecological effects. While the potential ecological effects of sediment deposition resulting from these events is adverse, the number of factors required to occur simultaneously means that the actual chance of them occurring together relatively low.

Operation of the Project will involve the discharge of treated road runoff to the Porirua Harbour which will contribute to the long term accumulation of contaminants in central subtidal basins. Operational phase discharges to the marine environment adjacent to the Wainui and Whareroa Streams will be diluted and widely dispersed given the large, high energy receiving environment. Operational water quality effects are assessed as being minor

Tangata whenua

The protection of stream habitats and resident native fish species is the key matter of interest to Ngati Toa both during the construction and operational phases of the Project. Ngati Toa undertake customary food gathering within the Project area and there are areas of historical and cultural significance that must be taken into account. Part 2 of the RMA provides a framework for assessing the actual and potential effects of the Project on tangata whenua. Section 7(a) is of particular importance, where particular regard is given to kaitiakitanga.

There will be direct and indirect effects of construction on waterbodies during construction, the most significant of which is the potential for increased levels of sediment entering waterways from the large scale earthworks required for the Project. Once the Project is operational, there is potential for the discharge of contaminated stormwater from the road surface to local streams, with potential impacts on water and habitat quality, and effects on sensitive species; and a potential increase of stormwater and contaminant discharge to Porirua Harbour with potential impacts on habitats and sensitive species.

Ngati Toa has provided a cultural impact assessment for the Project, which concludes that the methods taken by the applicants to manage adverse effects on the environment are supported.

Landscape and visual

The proposed route and the significant engineering required to construct the Project means there are potential adverse effects on the natural character of wetlands, rivers and their margins, outstanding natural landscapes, visual amenity values, and physical landscape features. The scale of these effects varies as the road traverses through the landscape. Conversely, there is the potential for positive visual effects for users of the road who will travel through the bold natural landscapes that are largely inaccessible at present.

A number of general and specific measures are proposed which will avoid, remedy, mitigate or offset the adverse landscape and visual effects resulting from the construction and operation of the Project. These measures have been informed by the urban and landscape design principles developed for the Project and documented in the Urban and Landscape Design Framework.

The scale of the Project means that it will create a significant change to the environment. The landscape and visual effects of this change cannot be fully avoided. The approach taken has been to avoid effects as far as practicable and to implement a range of proposed measures will adequately manage the remaining adverse effects.

Archaeology and built heritage

There are no known archaeological or built heritage sites within the area proposed for the Main Alignment. However, there are two sites of built heritage significance in close proximity to the Main Alignment, which have the potential to be adversely affected by aspects of the Project's construction and operation.

At both locations, appropriate mitigation, monitoring and remedial action will be implemented (if required) to manage effects appropriately. One site of heritage significance (WWII brick fuel tank) is not easily viewed or accessible as it is located on private land. To increase public appreciation of the structure, the NZTA will provide a track to allow it to be accessed by the public, which would be a positive effect of the Project.

In addition, protocols will be followed in the event of accidental discovery of potential archaeological material appropriate protocols are followed.

Social effects

Construction and operation of the Project has the potential to generate adverse social effects as a result of noise and vibration, air quality, and traffic and access, affecting amenity, connectivity and movement, local character and recreation values. Measures outlined within the CEMP and its subsidiary plans for traffic, noise/ vibration and air quality will be used to manage any adverse effect on the social environment arising from construction. Once the Project is operational, it is anticipated that many of the proposed mitigation measures will also continue to mitigate any adverse social effects.

Management of environmental effects

Where practicable, potential adverse operational effects have been avoided or reduced through the integrated design process which involved a combination of disciplines working together through the process (e.g. changes made to improve the route, amending the designation footprint etc.). Measures to avoid, remedy and mitigate potential adverse construction effects have been developed through an iterative process with a particular focus on managing stream diversion, reclamation and structures. Potential on-going effects from operation of the Project will be appropriately managed through various measures including, for example, noise barriers, stormwater treatment, significant landscaping and land retirement across the Project area.

Monitoring will be undertaken prior to, during and following construction to provide a mechanism through which additional mitigation measures may be put in place, if necessary, to mitigate any actual or potential environmental effects. A comprehensive suite of conditions for the designations and resource consents has been proposed. A significant feature of the set of proposed conditions is to establish the proposed management plan and environmental monitoring framework.

As a result of the mitigation proposed, which can be delivered as conditions of the consents and designations, the potential adverse effects of the Project will be adequately and appropriately avoided, remedied or mitigated.

Statutory assessment

In this case, the NZTA's resource consent applications that relate to all streamworks and bulk earthworks are bundled together as they cannot occur separately. In this regard, under the GWRC Regional Plan, the NZTA streamworks and bulk earthworks are a non-complying activity (with the exception of the concrete batching plant, which is a discretionary activity) and the PCC Project is a discretionary activity.

There are a large number of objectives and policies relevant to the Project (from national, regional and district planning documents). The main conclusions of the statutory assessment contained in the AEE are:

Overall, the Project is not inconsistent, and will give effect to (as relevant), the relevant objectives and policies of the statutory planning documents;

- The Project is a key part of the Wellington RoNS programme which will, as a whole, bring significant travel time savings between Wellington Airport and Levin, and ease freight movements into and out of Wellington - which is entirely consistent with the transport related policy in both the regional planning documents and the district plans;
- The Project will sustain the potential of natural and physical resources for future generations. It is intended to meet the growing transportation needs of the region and does not preclude future opportunities for other land transport development, such as public transport;
- The Project safe-guards the life supporting capacity of air, soils, water and ecosystems;
- The Project's adverse effects on the environment are proposed to be avoided, remedied, or mitigated;
- The Project recognises and provides for the matters in section 6 of the RMA;
- The Project has also appropriately responded to those matters in sections 7 and 8 of the RMA.

Overall, the AEE concludes that the Project meets the statutory tests of the RMA.

The AEE concludes that the benefits of the Project, weighed alongside the proposed measures to avoid, remedy and mitigate the adverse effects, means the Project is consistent with the purpose and principles of the RMA, and consequently, the sustainable management purpose of the RMA will be achieved.