

1 Statutory Assessment

Theme	Key Objectives and Policies	Analysis
<p>Enabling Infrastructure</p> <p><i>Infrastructure is enabled and where appropriate protected.</i></p> <p><i>Benefits of infrastructure are recognised while adverse effects are avoided, remedied or mitigated.</i></p>	<p>AUP:OIP RPS B2.2.1(1)(c), B2.2.1(1)(d), B2.2.1(5), B2.3.1(1)(d), B2.3.1(2).</p> <p>AUP:OIP RPS B3.2.1(1), B3.2.1(2), B3.2.1(3), B3.2.1(4), B3.2.1(5), B3.2.1(7), B3.2.1(8), B3.2.2(1), B3.2.2(2), B3.2.2(3), B3.2.2(6), B3.2.2(7), B3.2.2(8), B3.2.2(9), B3.3.1(1), B3.3.2(1), B3.3.2(2), B3.3.2(3), B3.3.2(4), B3.3.2(5), B3.3.2(7).</p> <p>AUP:OIP E17.2(1), E17.2(3), E17.3(1).</p> <p>AUP:OIP E26.2.1(1), E26.2.1(2), E26.2.1(4), E26.2.1(5), E26.2.1(9), E26.2.2(1), E26.2.2(2), E26.2.2(4), E26.2.2(5), E26.2.2(14), E26.2.2(15).</p> <p>AUP:OIP E27.2(1), E27.2(2), E27.2(5).</p>	<p>Summary of Objectives and Polices</p> <p>Objectives and policies in Chapters B2 and B3 of the AUP:OIP recognise the importance infrastructure plays in realising Auckland’s full economic potential. This includes integrating the provision of infrastructure with urban growth, avoiding incompatible land uses and increasing resilience. The provisions recognise the importance of the transport network in the movement of people, goods and services, urban form, enabling growth, and providing choices.</p> <p>Objectives and policies in Chapter E26 of the AUP:OIP identify that infrastructure is critical to the social, economic, and cultural well-being of people and communities and the quality of the environment. The development, operation, use, repair, maintenance, upgrading and removal of infrastructure is anticipated, and the benefits infrastructure can have, as well as a range of adverse effects, are acknowledged within the objectives and policies.</p> <p>Assessment</p> <p><i>Land Use Integration</i></p> <p>The Project is surrounded by land that is either identified under the AUP:OIP for future urbanisation or is already zoned for residential purposes. As such the Project is an anticipated element of a future urban environment which requires efficient and effective transport infrastructure.</p> <p>The Project will have significant benefits for Whenuapai as it will help improve the resilience, efficiency, reliability and safety of the transport network, assisting to reduce travel times. The Project will support transport mode and route choice. The Project will also provide access to future urban land facilitating the planned urban development in Whenuapai and helping to enable the general social and economic growth of Whenuapai. The Project will therefore result in improvements to the transport network which will provide benefits to local communities and other users.</p> <p><i>Infrastructure Integration</i></p> <p>The RPS, the regional plan and district plan include objectives and policies that seek to enable infrastructure to be provided in an integrated manner, with both land use and existing infrastructure and networks.</p> <p>The Project will achieve appropriate transport-land use integration by providing an upgraded urban arterial corridor in Whenuapai which will support the anticipated urban growth of the area. This area is identified in the AUP:OIP inside the Rural Urban Boundary and has an urban, or future urban zoning.</p> <p>The Project also achieves appropriate integration with Auckland Council and other infrastructure providers. AT has been working closely with Auckland Council, Watercare, Transpower and other providers to ensure the future transport network, which the Project will be an integral part of, is delivered in an integrated way with existing and additional infrastructure.</p>

Trig Road Corridor Upgrade Assessment of Environmental Effects - Appendix B: Statutory Assessment

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		<p>Trig Road provides on-ramp and off-ramp connections with State Highway 18. The upgrade of Trig Road will provide improved vehicles access to and from Whenuapai and the state highway network. This provides improved integration of the local and national transport networks.</p> <p><i>Mode Choice</i></p> <p>In addition to providing an upgraded arterial corridor for use by vehicles, the Project will also provide for public transport, walking and cycling. This will contribute to a transport network that is safe and efficient for users of all transport modes, not just private vehicle users. It will provide future communities with better connections to places of employment enabling economic growth in these areas and will help to encourage mode shift by specifically providing multi-modal transport options in a transport environment which currently prioritises private vehicles and freight (whilst continuing to provide for all users).</p> <p>Improved public transport operations in Whenuapai will be enabled by the Project through the provision of a high quality urban standard arterial corridor that incorporates public transport priority. The Project will also provide bus priority at key intersections to enable the operation of a more effective local bus network. The Project corridor is able to accommodate bus stops where needed, and therefore will be able to respond to the future land use of the surrounding area when it is developed.</p> <p>The Project will also provide improved walking and cycling facilities which will improve access for all sectors of the community and in turn will help to capture larger public transport catchments, further supporting the public transport network.</p> <p>Pedestrian safety and amenity will be prioritised through the design of public footpaths and cycle ways. All footpaths and cycle ways provided by the Project will be of sufficient width and capacity to appropriately provide for walking and cycling modes alongside the transport corridor, realising the benefits of an integrated transport network and, by providing for user safety and amenity, improving the quality of connections whilst minimising any potential adverse effects on users and adjoining activities .</p> <p><i>Design Philosophy</i></p> <p>The objectives and policies of the AUP:OIP recognise the benefits and the value of investment in infrastructure. They seek to enable the safe, efficient and secure provision of infrastructure where appropriate, while also acknowledging that there may be some adverse effects as a result of the provision of such infrastructure that cannot be completely avoided. Infrastructure has operational and functional needs that must be recognised to ensure that the infrastructure is effective.</p> <p>The Project has a functional and operational need to locate in Whenuapai. The options assessment demonstrated the need for an upgraded route through Whenuapai to meet the outcomes sought under the AUP:OIP. Without the infrastructure the needs of the existing and future community could not be met.</p> <p>The Project utilises existing transport corridors, making better and more efficient use of existing infrastructure. The optioneering process has balanced direct connectivity with environmental impacts to provide an efficient alignment,</p>

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		<p>seeking to avoid adverse effects of the Project through design where practicable. In particular effects have been avoided on any scheduled landscape features or overlays under the AUP:OIP.</p> <p>Any adverse effects that could not be avoided through design have been mitigated or remedied where appropriate by the design and management framework which has been adopted for the Project. Innovative design has been encouraged from the outset of the Project and will continue to be encouraged during further detailed design to address any environmental effects. For example, the width of the proposed corridor provides flexibility in design which enables it to respond to the surrounding land use as needed. This is supported by the management framework which identifies key environmental outcomes and sets out appropriate measures to manage effects.</p> <p><i>Construction Effects</i></p> <p>Most of the Project’s actual and potential environmental effects arise from construction activities, such as earthworks and associated noise and vibration or vegetation clearance and associated effects on landscape or ecology. Construction effects on the environment, the health and safety of the community and effects on existing amenity values will be mitigated. Mitigation measures will include construction noise management, traffic management, earthworks controls, mitigation planting, and erosion and sediment controls. Management plans will be developed and implemented where required to avoid, remedy or mitigate any adverse effects associated with construction.</p> <p>While the upgrade of Trig Road will involve the widening of the existing corridor which will impact two areas of wetland these works will be appropriately offset through wetland restoration and enhancement.</p> <p><i>Operational Effects</i></p> <p>Any effects associated with the operation of the Project will be remedied or mitigated through best practice principles which have been adopted in the design of the Project.</p> <p>The Project has considered existing and potential future natural hazards through the design process. This includes the evaluation of likely geotechnical and hydrological (flooding) risks including any likely effects of climate change such as rainfall events. Through this design evaluation process it has been concluded that there are no fundamental geotechnical constraints on the Project or hydrological hazards that are likely to result from the Project.</p> <p>The Project provides for appropriate stormwater management and treatment to avoid, remedy or mitigate any potential environmental effects of stormwater runoff from the transport corridor. The stormwater design incorporates appropriate stormwater attenuation and treatment to manage the potential adverse effects of runoff from the additional impervious area and avoid or mitigate new or exacerbated flood hazards or water quality issues.</p> <p>While the majority of the Project area is currently rural in nature, the Project area is identified under the AUP:OIP for urbanisation through its zoning. As the Project is an anticipated element of a future urban environment which requires efficient and effective transport infrastructure.</p> <p>Where noise on existing residential activities is identified to increase to unreasonable levels as a result of the Project’s operation, appropriate interventions to mitigate effects are proposed.</p>

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<p>Enabling infrastructure <i>within an overlay and in addition to the above</i></p> <p><i>Protect scheduled values but provide for infrastructure where:</i></p> <ul style="list-style-type: none"> • <i>There is functional or operational need; and</i> • <i>No practicable alternative.</i> 	<p>AUP:OIP RPS B3.2.1(4), B3.2.1(8), B3.2.2(3), B3.2.2(6), B3.2.2(7), B3.2.2(8), B3.2.2(9).</p> <p>AUP:OIP E26.2.1(9), E26.2.2(4).</p>	<p>Summary of Objectives and Policies</p> <p>The policies of Chapter B3 seek to enable the development and operation of infrastructure, even in sensitive areas that are scheduled in the AUP:OIP in relation to natural heritage, the coastal environment and historic heritage, provided adverse effects are avoided where practicable and an operational and functional need to locate in sensitive areas is demonstrated. While the objectives and policies of the AUP:OIP generally seek to recognise the benefits, functional and operational needs and value of investment in infrastructure and enable the safe, efficient and secure provision of infrastructure where appropriate, the objectives and policies also anticipate that there may be some adverse effects as a result of the provision of such infrastructure. However, the objectives and policies recognise that in some instances such adverse effects may be appropriate given the necessity of, and essential services provided by, infrastructure.</p> <p>Assessment</p> <p>The Project does not affect any overlays that protect scheduled values and require specific assessment in relation to land use and infrastructure integration (additional to the above assessment) but does include the following overlays, controls and designations - High Use Aquifer Management Area Overlay, Macroinvertebrate Community Index, Stormwater Management Area Control, Airspace Restriction Designation.</p> <p>The High Use Aquifer Management Area Overlay covers all of Whenuapai, as well as most of the wider North West area. This overlay seeks to manage the take and use of water from aquifers which is not relevant to the Project. The Macroinvertebrate Community Index also covers all of Whenuapai, as well as much of the wider North West area. This control is covered in the relevant Auckland wide provisions. The Stormwater Management Area Control covers the Hobsonville Road end of the Project. The Project includes an integrated stormwater solution to address any stormwater management issues.</p> <p>The Minister for Defence Airspace Restriction Designation covers all of Whenuapai, as well as much of the wider North West area. This designation protects the approach and departure paths of the Whenuapai airbase through height limit planes which require that “no obstacle shall penetrate the approach and departure path”. The Project is within the Inner Horizontal Surface plane. The Project does not require any structure which would exceed the maximum permitted altitude as specified by the Inner Horizontal Surface plane.</p>
<p>Urban growth and development capacity</p> <p><i>Development capacity is planned and sequenced with infrastructure to meet the future needs of communities.</i></p>	<p>National Policy Statement on Urban Development, O(1),(6), P(1)(c)(e)(f), (6).</p> <p>AUP:OIP B2.2.1(1), B2.4.1(5), B2.4.2(6), B3.2.1(5), B3.3.1(1)(b), B3.3.1(1)(c),</p>	<p>Summary of Objectives and Policies</p> <p>The National Policy Statement on Urban Development (NPS-UD) seeks to ensure urban environments are well-functioning and enable all people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety. Within the NPS-UD Auckland is recognised as a Tier 1 urban environment and therefore is subject to a greater policy direction in terms of intensification and density of urban form. The NPS-UD directs that urban development is integrated with infrastructure planning and funding decisions and is strategic over the medium to long term.</p>

Trig Road Corridor Upgrade Assessment of Environmental Effects - Appendix B: Statutory Assessment

Theme	Key Objectives and Policies	Analysis
<p><i>Urban growth and its associated infrastructure is provided for (and integrated) in appropriate locations, whilst recognising the values of highly productive rural land.</i></p>	<p>B3.3.2(4)(b), B3.3.2(5)(a), B9.2.1(2)</p> <p>AUP:OIP E27.2(1), E27.2(2), E27.2(5), E27.2(6).</p>	<p>The objectives and policies of the AUP:OIP seeks to provide sufficient feasible development capacity for housing with set dwelling targets over the next 30 years. In order to reach these targets adequate infrastructure must be existing or provided prior to or with development.</p> <p>Provisions in Chapter E27 Transport seek to ensure that land use and all modes of transport are integrated in a manner that realises the benefits of an integrated network and manages the adverse effects of traffic generation.</p> <p>Assessment</p> <p>The objectives and policies emphasise the importance of providing short, medium and long term residential and business capacity. This includes medium and long-term strategic planning for urban development.</p> <p>The Project area is identified under the AUP:OIP for urbanisation through both future urban zoning and “live” urban zoning. The Project directly responds to this future need for efficient and effective transport infrastructure to support urbanisation. The Project achieves the objectives and policies relating to appropriate transport-land use integration by planning, protecting and providing the required infrastructure to service growth in Whenuapai ahead of, or at the same time as development. AT has collaborated and integrated with other infrastructure providers and Auckland Council to facilitate planning and staging of a cohesive network to align with ‘development ready’ land.</p> <p>Funding is available for the Project, therefore AT is also seeking resource consents in conjunction with the notice of requirement to enable detailed design and construction of the Project to proceed in an efficient manner.</p> <p>The National Policy Statement on Urban Development and RPS recognise the contribution urban growth makes to peoples social, economic, cultural and environmental wellbeing. The Project will provide a high quality, effective, efficient and safe transport route that supports the movement of people, goods and services. Throughout design of the Project, consideration has been had to the potential intensity, scale, and resulting character and amenity of the future land uses of the surrounding land. The final design will therefore be integrated with and support the development of the surrounding area. This will enable people, communities and future generations in the wider Project area to provide for their social, economic, cultural and environmental wellbeing.</p> <p>Providing the relevant infrastructure to enable development to occur will provide housing benefits and will give the community access to high amenity public transport and active modes. This gives effect to the relevant objectives and policies under the National Policy Statement on Urban Development.</p>
<p>Manawhenua</p> <p><i>Manawhenua values are to be recognised and protected.</i></p> <p><i>Manawhenua are to be included in resource</i></p>	<p>AUP:OIP RPS B4.2.1(2).</p> <p>AUP:OIP RPS B6.2.1(1), B6.2.1(2), B6.2.2(1), B6.3.1(1), B6.3.1(2), B6.3.1(3), B6.3.2(1), B6.3.2(2), B6.3.2(3), B6.3.2(4),</p>	<p>Summary of Objectives and Policies – Kaitiakitanga</p> <p>The RPS requires recognition of and provision for the principles of Te Tiriti o Waitangi, in particular through Manawhenua participation in resource management processes.</p> <p>Assessment – Kaitiakitanga</p> <p>Recognition of Te Tiriti o, Waitangi partnerships is a key objective for the Programme and Manawhenua have been involved in the Programme from the start of the early IBC works. Manawhenua have since been actively involved throughout development of the early concepts, through alternatives assessment and identification of the preferred options.</p>

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<p><i>management processes, particularly in decision making in their role as kaitiaki.</i></p>	<p>B6.3.2(6), B6.5.1(1), B6.5.1(2), B6.5.1(3), B6.5.1(5), B6.5.2(1), B6.5.2(4), B6.5.2(5), B6.5.2(6), B6.5.2(8), B6.5.2(9).</p> <p>AUP:OIP RPS B7.4.1(6), B7.4.2(7)(d).</p> <p>AUP:OIP E1.2(2).</p> <p>AUP:OIP E3.3(5), E3.3(6), E3.3(7)(e), E3.3(9)(c), E3.3(13)(c).</p> <p>AUP:OIP E11.2(1), E11.3(2)(c), E11.3(2)(d), E11.3(3).</p> <p>AUP:OIP E12.3(1), E12.3(2)(c), E12.3(4).</p> <p>AUP:OIP E20.2(4), E20.3(3), E20.3(9).</p> <p>AUP:OIP E21.2(5), E21.3(3), E21.3(10).</p>	<p>This partnership approach has allowed the incorporation of Manawhenua values and expression of kaitiakitanga throughout the Programme. This has included participation in identifying any opportunities for mitigation, and any opportunities for representing cultural features in the landscape.</p> <p>In relation to the Project, Manawhenua have provided input through MCA’s, and CIAs were prepared by Te Kawerau ā Maki and Ngāti Whātua o Kaipara. Manawhenua consultation on the appropriate management of natural and physical resources has formed a significant part of the overall design of the Project. This approach has ensured that the mauri of, and the relationship of Manawhenua with, natural and physical resources has been provided for and enhanced overall. Consultation has ensured that Manawhenua values, mātauranga and tikanga have been properly considered and accorded sufficient weight when decisions have been made on the Project. This approach has allowed the incorporation of Manawhenua values and expression of kaitiakitanga throughout the Project.</p> <p>Manawhenua have provided input into the effects assessment of the Project on freshwater and particularly around earthworks including robust sediment control and management. Where possible the Project will limit the disturbance of land to the extent necessary for the delivery of the Project. This will help maintain the cultural and spiritual values of Manawhenua in terms of land and water quality, preservation of wāhi tapu, and kaimoana gathering. Combined with appropriate and robust sediment control measures, any adverse effects on waterways will be mitigated. Road runoff and stormwater treatment is included in the design along with long-term maintenance, to maintain water quality over time.</p> <p>Further, while the Project requires works in two wetlands, wetland restoration and enhancement will be undertaken to offset the adverse effects. Other adverse effects on Manawhenua values associated with freshwater resources, including wāhi tapu, wāhi taonga and mahinga kai will be avoided, remedied or mitigated.</p> <p>AT is committed to ongoing engagement with Manawhenua which aligns closely with the RPS’ long term view. Manawhenua will continue to be involved in the Project to help maintain consistency with these objectives and policies.</p> <p>Summary of Objectives and Policies – Māori Values</p> <p>The principles of the Te Tiriti o Waitangi are recognised and provided for in the sustainable management of natural and physical resources, wāhi tapu and other taonga. Sites and places of significance to Manawhenua are recognised and provided for in the objectives and policies of the AUP:OIP.</p> <p>Assessment – Māori Values</p> <p>The partnership approach adopted with Manawhenua means that Manawhenua values are embedded in the Project which gives effect to the provisions of the AUP:OIP. Having involved Manawhenua in design development and decision-making, has resulted in a distinctive and transformational outcome for the social, cultural, and economic environment.</p> <p>In particular, the Programme has sought to avoid wāhi tapu and other taonga where possible in order to avoid destruction of sites of significance. The Programme has also recognised Manawhenua cultural values, particularly with regards to the mauri of, and the relationships of Manawhenua with natural and physical resources including freshwater, land, air and coastal resources. Significant adverse effects on these values are required to be avoided, with lesser adverse effects avoided, remedied or mitigated as appropriate.</p>

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		<p>The Project does not affect any areas scheduled in the AUP:OIP in relation to natural heritage, natural resources or historic heritage values that require particular consideration. The Project area also does not include any Maori Land or Treaty Settlement Land.</p> <p>Designation and consent conditions are proposed to provide for ongoing consultation with manawhenua, opportunities for cultural monitoring, and accidental discovery protocols which require manawhenua involvement. Appropriate actions will be taken ensuring tikanga Māori is adhered to particularly where any kōiwi are accidentally discovered.</p>
<p>Indigenous Biodiversity and Ecological Values</p> <p><i>The protection and enhancement of indigenous biodiversity and ecological values (including in degraded areas) is promoted.</i></p> <p><i>Protect scheduled values but provide for infrastructure in sensitive areas considering:</i></p> <ul style="list-style-type: none"> <i>the benefits and value of providing that infrastructure;</i> <i>the functional or operational need to locate or traverse that location;</i> <i>whether any practicable alternatives would avoid or reduce</i> 	<p>AUP:OIP RPS B7.2.1(1), B7.2.1(2), B7.2.2(5), B7.3.1(1), B7.3.1(2), B7.3.1(3), B7.3.2(1), B7.3.2(4), B7.3.2(5), B7.3.2(6), B7.4.1(2), B7.4.1(4), B7.4.1(5), B7.4.2(1)(a), B7.4.2(1)(c), B7.4.2(1)(d), B7.4.2(7)(a), B7.4.2(7)(b), B7.4.2(7)(c), B7.4.2(7)(e), B7.4.2(8), B7.4.2(9), B7.5.1(2), B7.5.1(3), B7.5.2(1)(a), B7.5.2(1)(e), B7.5.2(1)(f).</p> <p>AUP:OIP E1.2(1), E1.2(3), E1.3(2), E1.3(3), E1.3(8), E1.3(9), E1.3(10), E1.3(11), E1.3(12), E1.3(13), E1.3(14), E1.3(26).</p> <p>AUP:OIP E3.2(1), E3.2(2), E3.2(3), E3.2(4), E3.2(5), E3.2(6), E3.3(1),</p>	<p>Summary of Objectives and Policies</p> <p>The AUP:OIP objectives and policies seek to protect and enhance ecological values across both terrestrial, freshwater and coastal environments. The primary method the AUP:OIP uses to protect biodiversity is the identification of SEAs. These areas receive the highest level of protection. Biodiversity values outside SEAs need to be considered and effects on them addressed. The permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands are to be avoided unless, amongst other matters, it is necessary to provide for infrastructure and no practicable alternative exists.</p> <p>Assessment</p> <p><i>Habitat Impacts</i></p> <p>The Project does not affect marine SEAs scheduled under the AUP:OIP and has been developed through robust constraints mapping to avoid terrestrial SEAs scheduled under the AUP:OIP.</p> <p>Whenuapai has been identified as appropriate for urbanisation by the AUP:OIP. The natural values within this area will therefore be subject to significant change through urbanisation. Where it is not practicable to locate or design the alignment to avoid areas with indigenous biodiversity values the best practicable option has been chosen with the Project seeking to manage any adverse effects arising from the chosen alignments. The Project will still seek to maintain ecosystem services and indigenous biological diversity values where it is possible to do so, while recognising that some vegetation removal and works within two wetlands are required in order to provide for the infrastructure necessary to enable the development of future urban land identified in the AUP:OIP.</p> <p>Some native vegetation and exotic habitats will be permanently lost as a result of the Project. While the majority of the affected habitats are comprised of predominantly exotic plant species, there are examples of native plant species scatter throughout which will also be lost. The native vegetation is not of high botanical interest and does not form part of a consistent and contiguous ecological habitat. Mitigation/offsetting measures will be implemented to address any ecological effects, in particularly through wetland restoration and enhancement.</p> <p><i>Stormwater Quality</i></p> <p>The RPS also directs that where water quality is good or excellent it must be maintained and where it has been degraded, it must be progressively improved. The AUP:OIP requires activities/development above a certain threshold to provide treatment for discharges so that any significant adverse effects are avoided and all other effects are mitigated.</p>

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<p><i>effects on the scheduled values;</i></p> <ul style="list-style-type: none"> <i>how the infrastructure contributes to the planned growth and intensification of Auckland.</i> 	<p>E3.3(2), E3.3(3), E3.3(4), E3.3(7), E3.3(8), E3.3(9), E3.3(13), E3.3(15).</p> <p>AUP:OIP E10.2(1), E10.3(1), E10.3(2), E10.3(3).</p> <p>AUP:OIP E11.2(1), E11.2(2), E11.2(3), E11.3(1), E11.3(2), E11.3(4), E11.3(5), E11.3(7).</p> <p>AUP:OIP E12.2(1), E12.3(1), E12.3(2)(c).</p> <p>AUP:OIP E14.2(1), E14.2(2), E14.2(4), E14.3(1), E14.3(2), E14.3(3), E14.3(8).</p> <p>AUP:OIP E15.2(1), E15.2(2), E15.3(1), E15.3(2), E15.3(3), E15.3(4)(b), E15.3(5), E15.3(6) E15.3(7).</p>	<p>The objectives and policies recognise full treatment will not be achievable in all circumstances. For infrastructure, treatment constraints can include space limitations, the need to accommodate other utility providers and the function of roads as overland flow paths for surrounding uses. In treating discharges, the BPO must be adopted, having regard to (among other things) the scale of effects, infrastructure investment priorities and operational requirements. Assessment of the BPO has been undertaken to inform the development of the Project. The BPO has been adopted in relation to stormwater design, mitigation and measures in conditions in order to minimise any potential adverse effects of stormwater discharges.</p> <p>An integrated approach to managing the Project and the surrounding freshwater systems has been taken. Stormwater modelling has been undertaken to determine the rate of runoff flows. This has been used to make sure there is adequate stormwater infrastructure incorporated within the design of the Project to ensure that all additional stormwater generated by the increase in impervious area and any contaminant runoff has been managed and controlled to minimise adverse effects as per the requirements of the AUP:OIP and Auckland Council’s technical standards. Sufficient space has been provided within the corridor for adequate stormwater treatment to be located. Any resulting discharge into the environment will be controlled and managed via appropriate filtering to minimise any adverse effects such that any adverse effects on freshwater systems are not significant.</p> <p><i>Erosion and Sediment Control</i></p> <p>The draft Erosion and Sediment Control Plan prepared for the Project provides the framework for the purpose of managing any actual and potential adverse effects resulting from construction of the Project. It sets out erosion and sediment control measures and describes the methods and practices to be implemented to minimise and manage the actual and potential effects of erosion and sediment generation.</p> <p>The Erosion and Sediment Control Plan will require soil/sediment to be retained on site where possible and control measures implemented in accordance with the relevant Auckland Council guidelines. This will provide for the on-going safety of people and avoid, remedy or mitigate adverse effects on the environment. Sediment generation will be minimised by way of methods and measures set out in the Erosion and Sediment Control Plan. The Erosion and Sediment Control Plan incorporates the relevant requirements to avoid any significant adverse effects caused by land disturbance and minimise sediment discharge, to the extent practicable, in accordance with the best practice guidance.</p> <p>Disturbance of land is limited to the extent necessary for the delivery of the Project. The Project itself will ultimately provide for people and communities social, economic and cultural well-being as well as their health and safety with the provision of an upgraded, high standard transport corridor. The final design will incorporate measures to maintain the stability and safety of surrounding land, buildings and structures.</p> <p><i>Stream Works</i></p> <p>In relation to structures over or within freshwater bodies, the objectives and policies encourage the removal of structures and retaining and enhancing of freshwater values and systems. The establishment of structures and other significant invasive activities (i.e. permanent loss/significant modification/reclamation/diversion/ bridging or other structures) are to be avoided, however exceptions are made for infrastructure.</p>

Theme	Key Objectives and Policies	Analysis
		<p>While the Project has been designed to avoid the loss or significant modification of watercourses where possible, works within two wetland are required. It is not practicable to locate or design the alignment to completely avoid areas with indigenous biodiversity values therefore the best practicable option has been chosen, as demonstrated through the comprehensive alternatives assessment process and design refinement. The works are required for the operation, use and maintenance of infrastructure, and effects will be appropriately offset as set out in the AEE.</p> <p><i>Air Quality</i></p> <p>Any potential adverse effects resulting from the discharge of contaminants to air during the development of the Project will be managed, including the potential for dust arising from bulk earthworks. The operation of the transport corridor is not expected to generate significant air quality effects or limit the ability for surrounding sites to be developed for residential or other sensitive land use activities. The Project may have a slight positive effect on air quality by helping to alleviate congestion.</p>
<p>Freshwater</p> <p><i>The health and well-being of water bodies and freshwater ecosystems is prioritised</i></p> <p><i>The permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands are to be avoided unless, amongst other matters, it is necessary to provide for infrastructure and no practicable alternative exists.</i></p>	<p>NPS-FW O(1), P(6),(7), (8),(9).</p> <p>AUP:OIP RPS: B7.2.1(2), B7.3.1(3), B7.3.2(1), B7.3.2(4), B7.3.2(5), B7.3.2(6), B7.4.1(4), B7.4.1(5), B7.4.2(1)(a), B7.4.2(1)(d), B7.4.2(7)(b), B7.4.2(9),</p> <p>AUP:OIP E12.2(1), E12.3(1), E12.3(2)(c).</p>	<p>Summary of Objectives and Policies</p> <p>The NPS-FW objective and policies seek to ensure that natural and physical resources are managed in a way that prioritises first, the health and well-being of water bodies and freshwater ecosystems followed by the health needs of people and then the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. In particular, the NPS-FW seeks to protect natural wetlands, rivers, outstanding waterbodies and habitats of indigenous freshwater species.</p> <p>The relevant AUP:OIP objectives and policies seek to protect and enhance ecological values in freshwater environments. The permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands are to be avoided unless, amongst other matters, it is necessary to provide for infrastructure and no practicable alternative exists. The objectives and policies seek to manage subdivision, use, development, including discharges and activities in the beds of lakes, rivers, streams, and in wetlands, to limit the establishment of structures within the beds of lakes, rivers and streams and in wetlands to those that have a functional need or operational requirement to be located there.</p> <p>Assessment</p> <p>The Project has sought to avoid or minimise impacts on streams and high value wetlands where possible. This is demonstrated through the comprehensive alternatives assessment process and design refinement. The alignment and design refinement process for the proposed designations have sought to avoid or minimise impacts on high value natural wetlands and streams, unless there is a functional requirement for any such impacts. There will be further opportunities to minimise any impacts within the transport corridor alignment during the detailed design.</p> <p>As discussed under the indigenous biodiversity assessment above, some freshwater environments have been impacted where there is a functional and operational need to do so. The Assessment of Ecological Effects identified that impacts on two areas of wetland can be appropriately offset through wetland restoration and enhancement, to achieve a slight net gain in wetland value and extent.</p>

Trig Road Corridor Upgrade Assessment of Environmental Effects - Appendix B: Statutory Assessment

Theme	Key Objectives and Policies	Analysis
		The proposed transport infrastructure is critical to enable existing and future communities to provide for their social, economic, and cultural well-being.
<p>Natural landscapes</p> <p><i>Natural landscapes with outstanding values are to be protected by avoiding adverse effects on those areas.</i></p> <p><i>Significant adverse effects in other areas should also be avoided, and all other adverse effects are to be avoided, remedied or mitigated.</i></p>	<p>AUP:OIP RPS B4.2.1(1), B4.2.1(3), B4.2.2(3), B4.2.2(6), B4.2.2(7), B4.2.2(8), B4.3.1(1), B4.3.1(2), B4.3.2(3), B4.5.1(1), B4.5.2(4).</p>	<p>Summary of Objectives and Policies</p> <p>The RPS seeks to recognise and protect natural heritage. In particular, the policies of the RPS seek to identify features with outstanding natural values, evaluate and schedule those outstanding natural features, protect the physical and visual integrity of those features from inappropriate subdivision use, and development, and, where practicable and appropriate, enhance outstanding natural features.</p> <p>The RPS identifies that the volcanic heritage of Auckland is a particularly notable feature across the region. The RPS also indicates that notable trees are a particularly important natural feature. Therefore, the RPS seeks to protect the values of both volcanic features and notable trees.</p> <p>Assessment</p> <p>The Project will not adversely affect any outstanding natural features, landscapes, areas, volcanic features, notable trees or other relevant natural landscapes identified in the AUP:OIP. Appropriate assessment has been undertaken to support the Project, which has confirmed that there are no such areas, trees or features within the Project's footprint.</p>
<p>Natural hazards and environmental risk</p> <p><i>Avoid increasing risk of adverse effects in areas subject to natural hazards (including climate change).</i></p> <p><i>Where infrastructure and development is required in these areas, natural hazard risks must be managed.</i></p> <p><i>Natural hazard areas include:</i></p>	<p>NPS-UD O(8), P(1)(e)(f), (6)(e).</p> <p>AUP:OIP RPS B2.3.1(1)(f).</p> <p>AUP:OIP RPS B10.2.1(1), B10.2.1(2), B10.2.1(3), B10.2.1(4), B10.2.1(5), B10.2.1(6), B10.2.2(5), B10.2.2(7), B10.2.2(8), B10.2.2(10), B10.4.1(1), B10.4.2(3).</p>	<p>Summary of Objectives and Policies</p> <p>The NPS-UD directs that urban environments support reductions in greenhouse gas emissions and are resilient to the current and future effects of climate change.</p> <p>The objectives and policies of Chapter B10 of the AUP:OIP enable and recognise the importance of infrastructure to support urban growth which includes integrating the provision of resilient transport networks and infrastructure in these areas and avoiding effects in areas subject to natural hazards and risk and adapting to the effects of climate change.</p> <p>Specific AUP:OIP objectives and policies reinforce the unique requirements of infrastructure and that it can have an operational or functional need to locate within a natural hazard area. Where infrastructure is required to locate within a hazard area significant adverse effects on people and property are sought to be first avoided, and otherwise mitigated to the extent practicable.</p> <p>Assessment</p> <p>The Project will deliver better accessibility and mode choice by providing a corridor that supports public transport as well as walking and cycling facilities, therefore reducing the reliance on low occupancy vehicles. This provides an important component to realising the regional emissions benefits of an integrated network. This shows alignment with the objectives and policies, and a positive contribution towards a reduction in greenhouse gas emissions.</p>

Trig Road Corridor Upgrade Assessment of Environmental Effects - Appendix B: Statutory Assessment

Theme	Key Objectives and Policies	Analysis
<ul style="list-style-type: none"> • Coastal erosion hazard area • Coastal storm inundation 1 per cent annual exceedance probability area • Coastal storm inundation 1 per cent annual exceedance probability plus 1m sea level rise area • Flood hazards – overland flow paths and 1 per cent annual exceedance probability floodplain • Land instability • Wildfires 	<p>AUP:OIP E1.2(3), E1.3(11)(c), E1.3(15)(b), E1.3(16).</p> <p>AUP:OIP E11.2(1), E11.3(6).</p> <p>AUP:OIP E12.2(1), E12.3(5), E12.3(6).</p> <p>AUP:OIP E30.2(1), E30.3(2).</p> <p>AUP:OIP E36.2(1), E36.2(2), E36.2(4), E36.2(5), E36.3(4), E36.3(18), E36.3(20), E36.3(21), E36.3(23), E36.3(24), E36.3(27), E36.3(28), E36.3(29), E36.3(30), E36.3(32), E36.3(33), E36.3(35).</p>	<p>The Project has been designed, and an options assessment undertaken, in recognition of the existing environment, including its constraints and opportunities, specific engineering requirements and implementation of integrated water principles. Assessment has been undertaken in relation to the risk of adverse effects, arising from the Project, to people, property, infrastructure and the environment from natural hazards. This assessment has taken into account the appropriateness and eventual establishment of development in new growth areas and the requirement to avoid where practicable and otherwise manage the effects of climate change and natural hazards on urban communities and infrastructure. Consequently, areas subject to natural hazards have been avoided in determining the extent of the Project and its associated works.</p> <p><i>Climate Change</i></p> <p>The Project has taken into account the potential risks of adverse effects arising from climate change. The Project design includes an integrated stormwater management system which will respond and adapt to the potential adverse effects of increased rainfall/flooding. Effects have been avoided as far as practicable through design and consideration of the BPO. Where effects of stormwater diversion and discharge cannot be avoided, they have been minimised or mitigated having particular regard to the potential for the diversion and discharge to create or exacerbate flood risks. This has been done by providing adequate space for stormwater infrastructure within the designation footprint to allow stormwater runoff to be captured and any discharges to meet Auckland Council’s technical standards.</p> <p><i>Flood Hazard</i></p> <p>The AUP:OIP objectives and policies also seek to manage the effects of development and land disturbance from urbanisation on natural systems such as overland flow paths and floodplains and the management of water quality and water systems. As Trig Road and Hobsonville Road are both generally situated along ridgelines there are only limited areas of the Project which are subject to the 1% AEP floodplain or intercept with overland flow paths.</p> <p>The Project appropriately manages and provides for these through the integrated stormwater management solution noted above. Any temporary diversions of overland flow paths due to construction will be managed to avoid any flooding risks to downstream sites and the finished Project will appropriately manage surface runoff through the proposed stormwater management system, such that the Project does not generate any new or exacerbated flood risks that result in significant adverse effects.</p> <p><i>Land stability</i></p> <p>The Project has considered existing and potential future land stability issues through the design process. This evaluation process has concluded that there are no fundamental land stability constraints for the Project which cannot be appropriately managed through detailed design.</p> <p><i>Contaminated Land</i></p> <p>Consent has been sought under the NES: Soil and conditions have been proposed requiring the preparation of a DSI and a Contaminated Land Management Plan. As such the adverse effects associated with contaminated land will be appropriately managed.</p>

Theme	Key Objectives and Policies	Analysis
<p>Urban form and quality design</p> <p><i>Transport networks support a quality urban form and are designed to achieve high levels of amenity and safety for users. The place function of transport networks is balanced with the functional movement purpose.</i></p>	<p>AUP:OIP RPS B2.2.1(1)(e), B2.3.1(3), B2.3.2(1)(d) - (f), B2.3.2(2), B2.3.2(4), B2.3.2(5).</p> <p>AUP:OIP RPS B3.3.1(1)(d), B3.3.2(4)(a), B3.3.2(7).</p> <p>AUP:OIP E12.2(1), E12.3(2), E12.3(3)</p> <p>AUP:OIP E17.2(1), E17.2(2), E17.2(3), E17.3(1), E17.3(4).</p> <p>AUP:OIP E24.2(1), E24.2(2), E24.3(1), E24.2(2).</p> <p>AUP:OIP E25.2(1), E25.2(2), E25.2(4), E25.3(2), E25.3(5), E25.3(10).</p>	<p>Summary of Objectives and Policies</p> <p>The objectives and policies seek to create and protect urban environments that are both functional and enjoyable for people, by balancing the place and movement function of transport networks. To achieve balance between place and movement, the objectives and policies recognise a necessary mode shift, minimising private vehicle travel in favour of public transport, walking and cycling.</p> <p>Assessment</p> <p>The Project is consistent with these objectives and policies as the upgraded corridor will provides for active modes. The Project footprint also provides sufficient room for the inclusion of public transport and the associated requirements of public transport such as bus stops. The Project retains sufficient flexibility to adapt to future land use as and when required. For example, the location of bus stops can be identified in the future when it becomes clear from the development of the surrounding land where those bus stops are required.</p> <p><i>Health and Safety</i></p> <p>The health and safety of people and communities is promoted as the Project balances the function of a road as a place for people with the function of being a route for the movement of people and vehicles. This is done by providing sufficient room within the Project footprint for both active modes and vehicles providing safe access and use for pedestrians and cyclists of all ages and abilities. The Project footprint also provides sufficient room for relevant street furniture and landscape planting to enhance the amenity values for pedestrians and cyclists. In this way the Project achieves its intended use as a high quality, multi-modal, arterial transport corridor.</p> <p><i>Transport-Land Use Integration</i></p> <p>Most of the Project area is zoned FUZ under the AUP:OIP. The FUZ identifies the land as earmarked for urbanisation, whilst effectively providing for existing rural uses. The nature of the future urbanisation is therefore uncertain i.e. the future urban form may contain different activities such as commercial, industrial, residential.</p> <p>AT has worked with Auckland Council to develop an understanding of the likely future urban environment and to provide a future transport network that will be of a suitable scale and form in response. The Project has been designed with sufficient adaptability to enable integration with the likely adjacent residential land uses which are expected to be developed in the Project area. This adaptability takes into account the current and planned land use, intensity, scale, character and amenity of the surrounding environment.</p> <p>Overall the Project will provide for better social, cultural and economic outcomes, through providing improved transport connections for the surrounding Whenuapai area and therefore assisting with and facilitating the planned urban growth of the Project area.</p> <p><i>Construction Effects</i></p> <p>The objectives and policies require that the impacts of construction on amenity are managed (dust, noise and vibration) whilst acknowledging that some disturbance and reduced amenity is inevitable. The Project provides for the coordinated</p>

Theme	Key Objectives and Policies	Analysis
		<p>and efficient delivery of infrastructure which is required to facilitate development. Land disturbance associated with the Project is necessary in order to provide the transport infrastructure that will benefit people and communities by enabling them to provide for their social, economic and cultural well-being.</p> <p>Any adverse effects on the environment and on community health and safety associated with the construction of the Project will be avoided, remedied or mitigated including through the development of a Construction Environmental Management Plan for the Project, which includes a suite of specific management plans and frameworks to manage specific effects including plans for construction noise management, traffic management and earthworks controls. For example, construction noise management may include the implementation of a CNVMP to manage noise and vibration during the construction period. This may include directing contractors to utilise measures, where practicable, to reduce noise. The appropriate mitigation measures will be determined on a case-by-case basis throughout construction using the CNVMP as the management and implementation tool.</p> <p><i>Operational Effects</i></p> <p>Operational effects of the Project will be mitigated where possible through best practice safety in design principles which have been adopted in the design of the Project. Any mitigation undertaken will take into consideration surface material, noise barriers and building modification.</p> <p>The Project will include the necessary lighting required when constructed. This will achieve the relevant objectives and policies by facilitating the safety and security of pedestrians and cyclists using the Project and the safety of vehicle users. Such measures will be confirmed through the detailed design stage.</p>
<p>Built heritage and archaeology</p> <p><i>Recognises the importance of heritage to the identity of Auckland by avoiding significant adverse effects on scheduled historic heritage, where practicable, and encouraging new development to have due regard to significant historic heritage.</i></p>	<p>AUP:OIP RPS B5.2.1(1), B5.2.2(6), B5.2.2(7), B5.3.1(2), B5.3.2(4)(c), B5.3.2(4)(d).</p>	<p>Summary of Objectives and Policies</p> <p>The RPS recognises the importance of heritage to the identity of Auckland, and the importance of active stewardship to protect it from inappropriate subdivision use and development. The provisions seek to avoid significant adverse effects on scheduled historic heritage, where practicable, and to encourage new development to have due regard to significant historic heritage. The RPS objectives and policies enable the development, operation and maintenance of infrastructure, in circumstances where it is necessary and appropriate, in areas with natural and physical resources that have been scheduled in the AUP:OIP in relation to natural heritage, historic heritage and special character.</p> <p>Assessment</p> <p>The Project will not adversely affect any identified historic heritage places. Appropriate assessment has been undertaken to support the Project, which has confirmed that there are no identified heritage places within the Project's footprint.</p> <p>Accidental Discovery Protocol and cultural monitoring will be implemented as part of the Project to manage the unlikely event that a previously unknown archaeological and/or cultural heritage feature is discovered during construction.</p>

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Theme	Key Objectives and Policies	Analysis
Future Urban Zone	AUP:OIP H18.2(3), H18.3(6)(b) – (g).	<p>Majority of the land surrounding the existing Trig Road corridor is zoned FUZ under the AUP:OIP. It is therefore identified as appropriate for urbanisation in the future.</p> <p>The Project will not compromise future urban development nor undermine the form or nature of such development. The Project does not compromise or inhibit the efficient and effective operation of the local and wider transport network. The Project will instead complement and support future urban development and directly contributes to the efficient and effective operation of the transport network.</p> <p>The Project will include its own stormwater infrastructure such that it can integrate with the existing network.</p> <p>The Project is anticipated as part of a future urban environment where transport infrastructure is required to achieve efficient and effective access to urban areas. Any effects will be managed appropriately.</p>
Residential Zones	<p>AUP:OIP H5.2(1), H5.2(3), H5.2(4), H5.3(7), H5.3(8), H5.3(10).</p> <p>AUP:OIP H6.2(1), H6.2(3), H6.2(4), H6.3(8), H6.3(9), H6.3(10).</p>	<p>The land affected by the Project adjacent to Hobsonville Road, is zoned Residential – Mixed Housing Urban Zone.</p> <p>The transport infrastructure in Whenuapai requires upgrades in order to service the new development that will occur in accordance with the Whenuapai Structure Plan. Improving the transport infrastructure in Whenuapai will help to unlock the development capacity of the surrounding land in a coordinated and efficient way. Providing for development will support and provide for the social, economic and cultural well-being of foreseeable, future communities and people who will live in them.</p> <p>The Project will enable access to effective public transport and provide for future needs of the surrounding area when developed .</p> <p>The Project also has sufficient room within the Project footprint for relevant street furniture and landscape plantings to enhance safety and amenity values for all users. Footpaths and cycle ways will be safe and accessible for pedestrians and cyclists of all ages and abilities.</p> <p>Adverse effects on water quality, quantity and amenity values due to an increase in impervious area have been avoided or mitigated. The Project includes provision for appropriate stormwater management and treatment systems to deal with any significant actual and potential adverse effects of stormwater runoff.</p>