

Auckland Unitary Plan (Operative in Part) Objectives and Policies Assessment

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Relevant Objective / Policy	Assessment
B6 Mana Whenua	
B6.2.1. Objectives	
<p>(1) The principles of the Treaty of Waitangi/Te Tiriti o Waitangi are recognised and provided for in the sustainable management of natural and physical resources including ancestral lands, water, air, coastal sites, wāhi tapu and other taonga.</p>	<p>The unique relationship between Mana Whenua and natural and physical resources have been recognised. The applicant has engaged with relevant iwi authorities identified by Auckland Council with an interest in the area but no specific comments or concerns have been received for this application under the FTAA. The iwi approached by KQL are Ngāi Tai ki Tāmaki, Ngāti Manuhiri, Ngāti Maru, Ngaati Te Ata, Ngatiwai, Ngāti Whātua o Kaipara, Ngāti Whātua Ōrākei, Te Akitai Waiohua, Te Kawerau a Maki, Te Runanga o Ngāti Whatua, Te Ahiwaru Trust, (formally Makaurau Marae Maori Trust), Ngāti Paoa Iwi Trust. It is noted that ongoing engagement and consultation will continue throughout the further stages of the Project.</p> <p>The proposed conditions of consent include opportunities for cultural monitoring and cultural inductions. In addition, the Project includes measures such as:</p> <ul style="list-style-type: none"> • The replanting proposed at Oldfield Road and Hellyer offset and compensation sites will operate under the Accidental Discovery Protocol. • All plants to be planted will be eco-sourced. • All replanting and enhancement of existing planting are subject to pest and weed control measures.
<p>(2) The principles of the Treaty of Waitangi/Te Tiriti o Waitangi are recognised through Mana Whenua participation in resource management processes.</p>	
<p>(3) The relationship of Mana Whenua with Treaty Settlement Land is provided for, recognising all of the following:</p> <p>(a) Treaty settlements provide redress for the grievances arising from the breaches of the principles of Te Tiriti o Waitangi by the Crown;</p> <p>(b) the historical circumstances associated with the loss of land by Mana Whenua and resulting inability to provide for Mana Whenua wellbeing;</p> <p>(c) the importance of cultural redress lands and interests to Mana Whenua identity, integrity, and rangatiratanga; and</p> <p>(d) the limited extent of commercial redress land available to provide for the economic wellbeing of Mana Whenua.</p>	

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(4) The development and use of Treaty Settlement Land is enabled in ways that give effect to the outcomes of Treaty settlements recognising that:

- (a) cultural redress is intended to meet the cultural interests of Mana Whenua; and
- (b) commercial redress is intended to contribute to the social and economic development of Mana Whenua.

- Appropriate ecological management plans will be in place (and proposed as conditions of consent) as they relate to the offset planting and potential relocation of species.
- Erosion and sediment control measures will be in place throughout the lifetime of the quarry to minimise sediment runoff to the receiving environment.
- The applicant is committed to minimising the amount of overburden product/waste.
- A Kauri Dieback Management Plan is proposed as a condition of consent.

B6.2.2. Policies

(1) Provide opportunities for Mana Whenua to actively participate in the sustainable management of natural and physical resources including ancestral lands, water, sites, wāhi tapu and other taonga in a way that does all of the following:

- (a) recognises the role of Mana Whenua as kaitiaki and provides for the practical expression of kaitiakitanga;
- (b) builds and maintains partnerships and relationships with iwi authorities;
- (c) provides for timely, effective and meaningful engagement with Mana Whenua at appropriate stages in the resource management process, including development of resource management policies and plans;
- (d) recognises the role of kaumātua and pūkenga;
- (e) recognises Mana Whenua as specialists in the tikanga of their hapū or iwi and as being best placed to convey their relationship with their ancestral lands, water, sites, wāhi tapu and other taonga;
- (f) acknowledges historical circumstances and impacts on resource needs;
- (g) recognises and provides for mātauranga and tikanga; and
- (h) recognises the role and rights of whānau and hapū to speak and act on matters that affect them.

This policy is considered to be met for the reasons provided above.

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(2) Recognise and provide for all of the following matters in resource management processes, where a proposal affects land or resources subject to Treaty settlement legislation:

- (a) the historical association of the claimant group with the area, and any historical, cultural or spiritual values associated with the site or area;
- (b) any relevant memorandum of understanding between the Council and the claimant group;
- (c) any joint management and co-governance arrangements established under Treaty settlement legislation; and
- (d) any other specific requirements of Treaty settlement legislation.

(3) Where Mana Whenua propose an activity on Treaty Settlement Land, the benefits for the wider community and environment provided by any property specific protection mechanism, such as a covenant, shall be taken into account when considering the effects of the proposal.

(4) Enable the subdivision, use and development of land acquired as commercial redress for social and economic development.

(5) Enable Mana Whenua to access, manage, use and develop cultural redress lands and interests for cultural activities and accessory activities.

This policy is considered to be met for the reasons outlined in section 9.2 of the AEE.

B6.3.1.

(1) Mana Whenua values, mātauranga and tikanga are properly reflected and accorded sufficient weight in resource management decision-making.

(2) The mauri of, and the relationship of Mana Whenua with, natural and physical resources including freshwater, geothermal resources, land, air and coastal resources are enhanced overall.

(3) The relationship of Mana Whenua and their customs and traditions with natural and physical resources that have been scheduled in the Unitary Plan in relation to

As noted above, the applicant has actively engaged and consulted with Mana Whenua as part of this Project and will continue to engage and consult with Mana Whenua throughout the further stages of the Project. The proposed conditions of consent include opportunities for cultural monitoring and cultural inductions. In addition, the Project includes measures such as:

- The replanting proposed at Oldfield Road and Hellyer offset and compensation sites will operate under the Accidental Discovery Protocol.
- All plants to be planted will be eco-sourced.
- All replanting and enhancement of existing planting are subject to pest and weed control measures.

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natural heritage, natural resources or historic heritage values is recognised and provided for.

- Appropriate ecological management plans will be in place (and proposed as conditions of consent) as they relate to the offset planting and potential relocation of species.
- Erosion and sediment control measures will be in place throughout the lifetime of the quarry to minimise sediment runoff to the receiving environment.
- The applicant is committed to minimising the amount of overburden product/waste.
- A Kauri Dieback Management Plan is proposed as a condition of consent.

B6.3.2. Policies

(1) Enable Mana Whenua to identify their values associated with all of the following:

- (a) ancestral lands, water, air, sites, wāhi tapu, and other taonga;
- (b) freshwater, including rivers, streams, aquifers, lakes, wetlands, and associated values;
- (c) biodiversity;
- (d) historic heritage places and areas; and
- (e) air, geothermal and coastal resources.

(2) Integrate Mana Whenua values, mātauranga and tikanga:

- (a) in the management of natural and physical resources within the ancestral rohe of Mana Whenua, including:
 - (i) ancestral lands, water, sites, wāhi tapu and other taonga;
 - (ii) biodiversity; and
 - (iii) historic heritage places and areas.
- (b) in the management of freshwater and coastal resources, such as the use of rāhui to enhance ecosystem health;
- (c) in the development of innovative solutions to remedy the longterm adverse effects on historical, cultural and spiritual values from discharges to freshwater and coastal water; and

These policies are considered to be met for the reasons identified above.

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(d) in resource management processes and decisions relating to freshwater, geothermal, land, air and coastal resources.

(3) Ensure that any assessment of environmental effects for an activity that may affect Mana Whenua values includes an appropriate assessment of adverse effects on those values.

(4) Provide opportunities for Mana Whenua to be involved in the integrated management of natural and physical resources in ways that do all of the following:

- (a) recognise the holistic nature of the Mana Whenua world view;
- (b) recognise any protected customary right in accordance with the Marine and Coastal Area (Takutai Moana) Act 2011; and
- (c) restore or enhance the mauri of freshwater and coastal ecosystems.

(5) Integrate Mana Whenua values, mātauranga and tikanga when giving effect to the National Policy Statement on Freshwater Management 2014 in establishing all of the following:

- (a) water quality limits for freshwater, including groundwater;
- (b) the allocation and use of freshwater resources, including groundwater; and
- (c) integrated management of the effects of the use and development of land and freshwater on coastal water and the coastal environment.

As noted above, the applicant has actively engaged and consulted with Mana Whenua. The holistic nature of the Mana Whenua world view and opportunities to enhance the mauri of freshwater ecosystems has been recognised in the Project through the proposed stream restoration as part of the freshwater offsetting package including the removal of weir from Waitoki Stream which currently acts as a significant fish barrier. There are no protected customary rights in accordance with the Marine and Coastal Area (Takutai Moana) Act 2011.

This policy is considered to be met for the reasons assessed under Policy 2 of the NPS-FM as set out in section 10.4.1 the AEE.

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<p>(6) Require resource management decisions to have particular regard to potential impacts on all of the following:</p> <ul style="list-style-type: none"> (a) the holistic nature of the Mana Whenua world view; (b) the exercise of kaitiakitanga; (c) mauri, particularly in relation to freshwater and coastal resources; (d) customary activities, including mahinga kai; (e) sites and areas with significant spiritual or cultural heritage value to Mana Whenua; and (f) any protected customary right in accordance with the Marine and Coastal Area (Takutai Moana) Act 2011. 	<p>This policy is considered to be met for the reasons identified above.</p>
<p>(7) Protect the places and areas listed in Schedule 12 Sites and Places of Significance to Mana Whenua Schedule from adverse effects of subdivision, use and development by avoiding all of the following:</p> <ul style="list-style-type: none"> (a) the destruction in whole or in part of the site or place and its extent; (b) adverse cumulative effects on the site or place; (c) adverse effects on the location and context of the site or place; and (d) significant adverse effects on the values and associations Mana Whenua have with the site or place; taking into account in such circumstances whether or not any structures, buildings or infrastructure are present and the adverse effects are temporary. 	<p>The Proposal will not affect places and areas listed in Schedule 12 Sites and Places of Significance to Mana Whenua Schedule.</p>
<p>(8) Protect places and areas in the Schedule 12 Sites and Places of Significance to Mana Whenua Schedule from the adverse effects of subdivision, use and development by all of the following:</p> <ul style="list-style-type: none"> (a) avoiding where practicable, or otherwise remedying or mitigating adverse effects on the values and associations of Mana Whenua with the site, place or area; (b) requiring a protocol to be followed in the event of accidental discovery of kōiwi, archaeology or artefacts of Māori origin; and (c) undertaking appropriate actions in accordance with mātauranga and tikanga Māori. 	<p>The Proposal will not affect places and areas listed in Schedule 12 Sites and Places of Significance to Mana Whenua Schedule.</p>

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(9) Protect Mana Whenua cultural heritage that is uncovered during subdivision, use and development by all of the following:

- (a) requiring a protocol to be followed in the event of accidental discovery of kōiwi, archaeology or artefacts of Māori origin;
- (b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and
- (c) requiring appropriate measures to avoid, remedy or mitigate further adverse effects.

Proposed conditions relating to cultural monitoring and cultural inductions form part of the Proposal, as well as an accidental discovery protocol.

B7.1 Natural Resources – Indigenous Biodiversity

B7.2.1. Objectives

(1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision use and development.

(2) Indigenous biodiversity is maintained through protection, restoration and enhancement in areas where ecological values are degraded, or where development is occurring.

It is noted that Council have yet to amend the RPS on Indigenous Biodiversity to be in line with the NPS-IB which provides for an exception to the strict avoidance requirement for aggregate extraction. Having regard to this, objective 1 and 2 should be considered holistically.

In this regard, the Proposal will remove approximately 28.97 ha of SEA vegetation considered to be generally of high ecological value to facilitate the quarry expansion. While this might be inconsistent with this RPS (objective 1 in particular), it is not considered contrary given the intent of the NPS-IB, in particular, the exception applicable to aggregate extraction. This is addressed in further detail in section 10.4.3 of the AEE. Having regard to objective 2 of the RPS, the effects management hierarchy has therefore been applied to the Proposal and a comprehensive offsetting and compensation package has been prepared by Bioresarches to address residual effects. Offset and compensation actions include:

- Construct a predator-proof fence encompassing 60ha of land;
- Undertake 61.8ha of revegetation (29.18ha within the predator-proof fence and 32.63ha occurring outside the fence);
- Pest browser control of the remaining existing vegetation outside the predator-proof fence (57.52ha);

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	<ul style="list-style-type: none"> • Provision of enrichment planting to all existing vegetation (88.28ha) both within and outside the fence; • Weed control; <p>When reading these objectives together and taking a holistic approach, while the proposal might be inconsistent with objective B7.2.1.1, it is not considered contrary to this objective. The proposal is considered to be consistent with objective B7.2.1.2 given the offsetting and compensation package proposed which will ensure a net biodiversity gain.</p>
B7.2.2. Policies	
<p>(1) Identify and evaluate areas of indigenous vegetation and the habitats of indigenous fauna in terrestrial and freshwater environments considering the following factors in terms of the descriptors contained in Schedule 3 Significant Ecological Areas – Terrestrial Schedule:</p> <p>(a) representativeness;</p> <p>(b) stepping stones, migration pathways and buffers;</p> <p>(c) threat status and rarity;</p> <p>(d) uniqueness or distinctiveness; and</p> <p>(e) diversity.</p>	<p>The majority of the Site is subject to a SEA overlay (SEA_T_6454). SEA_T_6454 is considered to meet criteria 2 (threat status and rarity) and 3 (diversity).</p>
<p>(2) Include an area of indigenous vegetation or a habitat of indigenous fauna in terrestrial or freshwater environments in the Schedule 3 of Significant Ecological Areas – Terrestrial Schedule if the area or habitat is significant.</p>	
<p>(3) Identify and evaluate areas of significant indigenous vegetation, and the significant habitats of indigenous fauna, in the coastal marine area considering the following factors in terms of the descriptors contained in Schedule 4 Significant Ecological Areas – Marine Schedule:</p> <p>(a) recognised international or national significance;</p> <p>(b) threat status and rarity;</p> <p>(c) uniqueness or distinctiveness;</p> <p>(d) diversity;</p> <p>(e) stepping stones, buffers and migration pathways; and</p>	<p>This is not relevant to the Proposal as the SEA overlay affecting the Site relates to terrestrial values and not marine.</p>

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(f) representativeness.	
(4) Include an area of indigenous vegetation or a habitat of indigenous fauna in the coastal marine area in the Schedule 4 Significant Ecological Areas – Marine Schedule if the area or habitat is significant.	This is not relevant to the Proposal as the SEA overlay affecting the site relates to terrestrial values and not marine.
(5) Avoid adverse effects on areas listed in the Schedule 3 of Significant Ecological Areas – Terrestrial Schedule and Schedule 4 Significant Ecological Areas – Marine Schedule.	<p>The effects management hierarchy has been applied to ensure that significant adverse effects are avoided, remedied and mitigated, and any residual effects are offset and compensated. Given that the SEA overlay applies to the majority of the site, it is not practicable to avoid adverse effects on the identified indigenous biodiversity values of the SEA, however the more valuable areas of vegetation have been avoided and the A-Pit has been relocated to reduce further fragmentation of the SEA. The adverse effects that are not able to be avoided will be mitigated through the proposed ecological management plans (provided for as proposed conditions of consent). It is also proposed to undertake remediation planting for a total of 22.19 ha of the Project from Year 1 of the Project and continue every year after that for the total 45-year period of the operation.</p> <p>To address any residual adverse effects, the applicant proposes predator-proof fence, replanting and enhancement options and pest and weed management controls which will ensure biodiversity ‘net gain’¹ is achieved. It is noted that the offsetting and compensation proposal is undertaken in accordance with best current practice guidelines for achieving a net environmental gain. These include:</p> <ul style="list-style-type: none"> • Appendix 8 of the AUP (OP) – this sets out a framework for the use of biodiversity offsets. • Table 5 and Table 6 of the National Policy Statement on Indigenous Biodiversity – this sets out specific principles that underpin biodiversity offsetting and biodiversity compensation. • Appendix 6 of the National Policy Statement for Freshwater Management – this sets out 11 principles for aquatic offsetting.

¹ The term net gain is used generically to refer to expected outcomes from the offsetting/compensation package. However, we note that technically net gain relates to biodiversity offsetting while net positive is the appropriate term for biodiversity compensation’ and aligns with criteria 3 of the Biodiversity Compensation Principles that are set out in Appendix 4 of the NPSIB.

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	<ul style="list-style-type: none"> • Guidance on Good Practice Biodiversity Offsetting in New Zealand (August 2014). <p>In summary, it is proposed to construct a predator-proof fence encompassing 60ha of land, undertake 61.8ha of revegetation (29.18ha within the predator-proof fence), pest browser control of the remaining existing vegetation outside the predator-proof fence (57.52ha) and provision of enrichment planting to all existing vegetation (88.28ha) both within and outside the fence at the Oldfield Road offset site as outlined in section 6.2.6 of the AEE.</p> <p>Overall, the Proposal meets the intention of this Policy for the following reasons:</p> <ul style="list-style-type: none"> • The extensive offsetting and compensation package proposed will ensure biodiversity 'net gain' is achieved. • The zoning of the Site as a Special Purpose - Quarry Zone where mineral extraction activities are therefore clearly contemplated under the planning framework. • The specific aggregate extraction exception identified in the NPS-IB, and the role of the effects management hierarchy where avoidance of effects is not practicable.
B7.3 Natural Resources – Freshwater Systems	
B7.3.1. Objectives	
(1) Degraded freshwater systems are enhanced.	<p>The Project will result in reclamation of 2,439m of stream of low to very high ecological value. In our view, retention of the extent of the stream is not practicable given that the wider Kings Quarry property is scattered with many watercourses, and it was therefore not practicable to locate the Project in an area where no watercourses would be affected. There is a clear functional need for the quarrying to occur on the site because that is where the aggregate is located, which is supported by the Special Purpose – Quarry Zoning of the Site. To address any residual adverse effects associated with the loss of stream, the applicant proposes 2,893 metres of stream restoration through 10m riparian planting and the removal of barriers to fish passage, and restore 6,400m² of degraded wetland habitat through wetland and buffer planting and fencing which will ensure biodiversity 'net gain' is achieved. It is also proposed to compensate the loss of</p>
(2) Loss of freshwater systems is minimised.	
(3) The adverse effects of changes in land use on freshwater are avoided, remedied or mitigated.	

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	<p>stream extent through the removal of the weir within Waitoki stream which will restore the connectivity of approximately 3.4km of stream extent.</p> <p>Having regard to the zoning of the site and the extensive offsetting and compensation package proposed which will ensure a net biodiversity gain, as well as noting the <i>East-West Link</i> decision and the associated policies that contemplate off-setting, we consider that the proposal is consistent with these objectives.</p>
B7.3.2. Policies	
<p>Integrated management of land use and freshwater systems</p> <p>(1) Integrate the management of subdivision, use and development and freshwater systems by undertaking all of the following:</p> <p>(a) ensuring water supply, stormwater and wastewater infrastructure is adequately provided for in areas of new growth or intensification;</p> <p>(b) ensuring catchment management plans form part of the structure planning process;</p> <p>(c) controlling the use of land and discharges to minimise the adverse effects of runoff on freshwater systems and progressively reduce existing adverse effects where those systems or water are degraded; and</p> <p>(d) avoiding development where it will significantly increase adverse effects on freshwater systems, unless these adverse effects can be adequately mitigated</p>	<p>An Erosion and Sediment Control Plan will be in place throughout the Project to appropriately manage sediment runoff to the remaining streams.</p> <p>In our view, this policy is wider than just avoiding the loss of streams within the Site but also requires consideration of the watercourses that are being retained on site and the measures in place to manage effects on those watercourses. On this basis, the proposal is consistent with this policy.</p>
<p>Management of freshwater systems</p> <p>(2) Identify degraded freshwater systems.</p> <p>(3) Promote the enhancement of freshwater systems identified as being degraded to progressively reduce adverse effects.</p>	<p>The ecological values of the streams have been identified by Bioresarches (Appendix 9). In summary, all intermittent streams were assessed as having low to high ecological value and the permanent stream (Stream 13) was assessed as having very high ecological value. As part of the Proposal, it is proposed to remove the weir from Waitoki Stream. Although Waitoki Stream is not considered degraded, the weir currently acts as a significant fish barrier and its removal will provide for improved connectivity of freshwater fauna habitat.</p>
<p>(4) Avoid the permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands and their margins, unless all of the following apply:</p> <p>(a) it is necessary to provide for:</p>	<p>Given that it is not practicable to avoid loss of 2,439m of stream, consideration is given to the matters listed in Policies B7.3.2(4)(a)-(d) as follows:</p>

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<p>(i) the health and safety of communities; or</p> <p>(ii) the enhancement and restoration of freshwater systems and values; or</p> <p>(iii) the sustainable use of land and resources to provide for growth and development; or (iv) infrastructure;</p> <p>(b) no practicable alternative exists;</p> <p>(c) mitigation measures are implemented to address the adverse effects arising from the loss in freshwater system functions and values; and</p> <p>(d) where adverse effects cannot be adequately mitigated, environmental benefits including on-site or off-site works are provided.</p>	<ul style="list-style-type: none"> • (a)(iii) Aggregate extraction is necessary for the sustainable use of the land specially zoned for quarry purposes to provide for growth and development. Policy B7.3.2(4)(a)(i) and (ii) are not considered relevant. • (b) The retention of the extent of the stream is not practicable given that that the wider Kings Quarry property is scattered with many watercourses, and it was therefore not practicable to locate the Project in an area within the Site where no watercourses would be affected. • (c) Stream reclamation cannot be mitigated and residual adverse effects on streams will need to be offset or compensated. • (d) Bioresarches has prepared a Freshwater Ecology Residual Effects Analysis Report (attached as Appendix 21) to ensure a no net loss of freshwater habitat and stream extent can be achieved and that the offset and compensation actions are sufficient to outweigh the impact from the Project. It is proposed to provide aquatic offsetting through the restoration of 2,893 linear metres of stream and the restoration of 6,400m² of degraded wetland habitat. It is also proposed to compensate the loss of stream extent through the removal of the weir within Waitoki stream which will restore the connectivity of approximately 3.4km of stream extent.
<p>(5) Manage subdivision, use, development, including discharges and activities in the beds of lakes, rivers, streams, and in wetlands, to do all of the following:</p> <p>(a) protect identified Natural Lake Management Areas, Natural Stream Management Areas, and Wetland Management Areas;</p> <p>(b) minimise erosion and modification of beds and banks of lakes, rivers, streams and wetlands;</p> <p>(c) 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; and</p> <p>(d) maintain or where appropriate enhance:</p> <p>(i) freshwater systems not protected under Policy B7.3.2(5)(a);</p> <p>(ii) navigation along rivers and public access to and along lakes, rivers and streams;</p>	<p>Consideration is given to the matters listed in Policies B7.3.2(5)(a)-(d) as follows:</p> <ul style="list-style-type: none"> • (a) There are no identified Natural Lake Management Areas, Natural Stream Management Areas and Wetland Managements Areas within the Site. • (b) For the streams to be retained, erosion and sediment control measures will be in place throughout the lifetime of the quarry to minimise sediment runoff to the stream environment. • (c) There are no structures proposed within the bed of streams as part of the Project. Instead, it is proposed to remove the weir from Waitoki Stream that currently act as a significant fish barrier. • (d) Bioresarches has prepared a Freshwater Ecology Residual Effects Analysis Report (attached as Appendix 21) to ensure a no net loss of stream value and extent can be achieved and that the offset and compensation actions are

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- (iii) existing riparian vegetation located on the margins of lakes, rivers, streams and wetlands; and
(iv) areas of significant indigenous biodiversity.

sufficient to outweigh the impact from the Project. It is proposed to provide aquatic offsetting for the loss of stream value through the restoration of 2,893 linear metres of stream via 10m riparian planting and the removal of barriers to fish passage, and restore 6,400m² of degraded wetland habitat through wetland and buffer planting and fencing as compensation for the loss of stream extent. It is also proposed to compensate the loss of stream extent through the removal of the weir within Waitoki stream which will restore the connectivity of approximately 3.4km of stream extent.

Similar to the above, in our view this policy is wider than just avoiding the loss of streams within the Site but also requires consideration of the watercourses that are being retained on site including those to be restored and enhanced as part of the offsetting and compensation proposal. On this basis, the proposal is consistent with this policy.

- (6) Restore and enhance freshwater systems where practicable when development, change of land use, and subdivision occur.

As discussed above, the applicant proposes 2,893 metres of stream restoration through 10m riparian planting and removal of barriers to fish passage, and 6,400m² of wetland restoration through wetland and buffer planting and fencing which will ensure biodiversity 'net gain' is achieved. In addition, the removal of the weir from Waitoki Stream will provide for improved connectivity of freshwater fauna habitat. On this basis, the proposal is consistent with this policy.

B7.4 Coastal water, freshwater and geothermal water

B7.4.1 Objectives

- (2) The quality of freshwater and coastal water is maintained where it is excellent or good and progressively improved over time where it is degraded.
(5) The adverse effects from changes in or intensification of land use on coastal water and freshwater quality are avoided, remedied or mitigated.

We acknowledge that the Project will result in the loss of freshwater systems. In our view, retention of the extent of the stream is not practicable given that that the wider Kings Quarry property is scattered with many watercourses, and it was therefore not practicable to locate the Project in an area where no watercourses would be affected. There is a clear functional need for the quarrying to occur on the site because that is where the aggregate is located, which is supported by the Special Purpose – Quarry Zoning of the Site. To address any residual adverse effects associated with the loss of stream, the applicant proposes aquatic offsetting for the loss of stream value through the restoration of 2,893 linear metres of stream via 10m riparian planting and the removal of barriers to fish

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	<p>passage, and restoration of 6,400m² of degraded wetland habitat through wetland and buffer planting and fencing including the removal of the weir as compensation for the loss of stream extent. The offsetting and compensation actions will ensure biodiversity 'net gain' is achieved. Considering the <i>East-West Link</i> decision, offsetting is appropriate and can be used to meet avoid policies. As above, it is important that these objectives are assessed in the context of the other relevant zone and overlays objectives.</p> <p>For this reason, the Project is consistent with these objectives</p>
(6) Mana Whenua values, mātauranga and tikanga associated with coastal water, freshwater and geothermal water are recognised and provided for, including their traditional and cultural uses and values.	Ongoing engagement and consultation will continue throughout the further stages of the Project.
B7.4.2 Policies	
<p>(1) Integrate the management of subdivision, use, development and coastal water and freshwater, by:</p> <p>(a) ensuring water supply, stormwater and wastewater infrastructure is adequately provided for in areas of growth; and</p> <p>(b) requiring catchment management planning as part of structure planning;</p> <p>(c) controlling the use of land and discharges to minimise the adverse effects of runoff on water and progressively reduce existing adverse effects where those waters are degraded; and</p> <p>(d) avoiding development where it will significantly increase adverse effects on water, unless these adverse effects can be adequately mitigated.</p>	<p>Similar to the above, in our view this policy is wider than just avoiding the loss of streams within the Site but also requires consideration of the watercourses that are being retained on site. An ESCP will be in place throughout the lifetime of the quarry to minimise sediment run off to streams that are retained. On this basis, the Project is consistent with this policy.</p>
(6) Progressively improve water quality in areas identified as having degraded water quality through managing subdivision, use, development and discharges.	<p>Although we acknowledge the Project will result in loss of 2,439m of stream of low to very high ecological value., in our view, retention of the extent of the stream is not practicable given that that the wider Kings Quarry property is scattered with many watercourses, and it was therefore not practicable to locate the Project in an area where no watercourses would be affected. There is a clear functional need for the quarrying to occur on the site because that is where the aggregate is located, which is supported by the Special Purpose – Quarry Zoning of the Site. To address any residual adverse effects associated with the loss of stream, the applicant proposes 2,893 metres of stream restoration through 10m</p>

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	riparian planting and removal of barriers to fish passage, 6,400m ² of wetland restoration through wetland and buffer planting and fencing, and removal of the weir which will ensure biodiversity 'net gain' is achieved. For this reason, the proposal is consistent with the policy.
B7.5 Natural Resources – Air	
B7.5.1. Objectives	
(1) The discharge of contaminants to air from use and development is managed to improve region-wide air quality, enhance amenity values in urban areas and to maintain air quality at appropriate levels in rural and coastal areas.	The site is located in a low air quality – dust and odour area. To ensure that adverse effects from discharges of contaminants to air are avoided, remedied or mitigated, the Project will operate under a Dust Management Plan (which is provided for as a condition of consent) which includes methods to minimise dust emissions to air such as water suppression, wind speed monitoring and dust monitoring. In addition to the dust management procedures, it is important to highlight that Kings Quarry will not have the same potential level of dust generation as other quarries in the Auckland region due to the nature of the alluvial rock. The primary processing required is largely screening and then washing of the quarried products which will produce far less airborne dust versus crushing. The roadways are also wetted naturally from the abundance of moisture in the ground which will assist in the reduction of traffic generated dust. For the reasons provided above, it is considered that these objectives are met and will avoid, remedy or mitigate adverse effects from discharges of contaminants to air.
(2) Industry and infrastructure are enabled by providing for reduced ambient air quality amenity in appropriate locations.	
(3) Avoid, remedy or mitigate adverse effects from discharges of contaminants to air for the purpose of protecting human health, property and the environment.	
B7.5.2. Policies	
(1) Manage discharge of contaminants to air from use and development to: (a) avoid significant adverse effects on human health and reduce exposure to adverse air discharges; (b) control activities that use or discharge noxious or dangerous substances; (c) minimise reverse sensitivity effects by avoiding or mitigating potential land use conflict between activities that discharge to air and activities that are	These policies are considered to be met for the reasons provided above.

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- sensitive to air discharges;
 (d) protect activities that are sensitive to the adverse effects of air discharges;
 (e) protect flora and fauna from the adverse effects of air discharges;
 (f) enable the operation and development of infrastructure, industrial activities and rural production activities that discharge contaminants into air, by providing for low air quality amenity in appropriate locations;
- (2) Implement Policies B7.5.2(1)(a)-(f) by a combination of regulatory and nonregulatory methods that include:
 (a) managing industrial discharges to air; and
 (b) reducing emissions from domestic fires; and
 (c) reducing emissions from motor vehicles.

B7.6 Natural Resources – Minerals

B7.6.1. Objectives

- (1) Auckland's mineral resources are effectively and efficiently utilised.

The Proposal is to undertake mineral extraction activities on a site zoned specifically for quarry purposes.

Kings Quarry is located north-west of Auckland's urban area and in close proximity to future urban areas, and as such, is well located to be able to supply aggregate to north and west of Auckland without incurring high transport costs associated with greater travel distances. If aggregate were required to be sourced from alternative sources outside the Auckland region, this could significantly impact the cost of aggregate. The strategic location of the Kings Quarry therefore makes this a valuable resource and will ensure that the supply of aggregate continues to be cost-effective.

In particular, Market Economics conclude:

In the case of Kings Quarry, the aggregate is extremely well situated with respect to significant future growth areas in Northern (Dairy Flat to Silverdale in particular) and Western Auckland (out towards Kumeu and Whenuapai).

There are no "practicable alternative locations" for this volume of quarrying to occur, to meet these growth needs within Auckland – that is not already dedicated

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	<p>to meeting development needs elsewhere. This is Auckland's aggregate reality. Auckland is a net importer of aggregate and under a high growth future, the shortfall will reach as high as 20m tonnes annually (6m tonnes under the medium future).</p> <p>Figure 3-3, below, shows the location of Auckland's quarries and appended to this report is a listing of the production of Auckland's aggregate quarries, which makes it clear that there are no alternatives in this location well suited to meeting the growth needs of northern Auckland. Coatesville and Helensville are the closest 2 sites – neither of which are suitable. Helensville is a sand source and Coatesville hasn't been quarried for some time and the pit is full of water.</p>
B7.6.2. Policies	
(1) Provide for mineral extraction activities within appropriate areas to ensure a secure supply of extractable minerals for Auckland's continuing development.	This policy is considered to be met for the reasons provided above.
(2) Encourage the use of recycled mineral material, construction waste and demolition waste to supplement mineral supply.	It is expected that only 11% of the material extracted will be waste / overburden material.
(3) Identify extractable mineral deposits for future use and safeguard the areas containing regionally significant extractable deposits from inappropriate land use and development.	The zoning of the Site as a Special Purpose - Quarry Zone ensures appropriate use of the Site for mineral extraction. The Project will have a lifecycle of up to 45 years.
(4) Require mineral extraction activities to be established and operated in ways which avoid, remedy or mitigate significant adverse effects on the environment.	<p>As set out in the application, the effects management hierarchy has been applied to ensure that significant adverse effects are avoided, remedied and mitigated, and any residual effects are offset and compensated to ensure biodiversity 'net gain' is achieved.</p> <p>The site is subject to a scheduled natural resource (being the SEA overlay) and it is not practicable to entirely avoid adverse effects on the SEA because it covers almost all of the quarry site. The site will be progressively rehabilitated when areas are no longer required for quarrying activities, and revegetated. A Quarry Management Plan is provided as part of this application to address operational matters associated with mineral extraction.</p> <p>To address any residual adverse effects, the applicant proposes extensive replanting and enhancement options which will ensure biodiversity 'net gain' is</p>

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	<p>achieved. In summary, it is proposed to construct a predator-proof fence encompassing 60ha of land, undertake 61.8ha of revegetation (29.18ha within the predator-proof fence), pest browser control of the remaining existing vegetation outside the predator-proof fence (57.52ha), provision of enrichment planting to all existing vegetation (88.28ha), 2,893 metres of stream restoration through riparian planting, 6,400m² of wetland restoration from exotic, unbuffered wetlands to indigenous wetlands with native buffer planting and removal of the weir from Waitoki Stream.</p> <p>It is considered that this policy is not a strict avoidance policy and should be read in the context of the zoning. In respect of off-setting, we refer to the <i>East-West Link</i> Supreme Court decision which held that offsets can be taken into account to address “avoid” policies. Having regard to this and when taking into account the extensive offsetting and compensation package proposed, it is considered that the Project is consistent and not contrary to this policy.</p>
(5) Avoid locating sensitive activities adjacent to regionally significant mineral resources unless they can avoid compromising existing and future mineral extraction.	This is not considered relevant to the Proposal.
(6) Enable industries that use the products of mineral extraction activities to locate on sites adjoining quarry zones.	This is not considered relevant to the Proposal.

D9. Significant Ecological Areas Overlay

Relevant Objective / Policy	Assessment
D9.2. Objectives [rcp/rp/dp]	
(1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision, use and development.	Given that the SEA overlay applies to the majority of the site, it is not practicable to avoid adverse effects on the identified indigenous biodiversity values of the SEA. The zoning of the site as a Special Purpose - Quarry Zone contemplates mineral extraction activities in this location and therefore there is a clear functional need for the quarrying to occur on the site.
(2) Indigenous biodiversity values of significant ecological areas are enhanced.	

D9. Significant Ecological Areas Overlay

	<p>The effects management hierarchy has been applied to ensure that significant adverse effects are avoided, remedied and mitigated, and any residual effects are offset and com. The more valuable areas of vegetation have been avoided and the A-Pit has been relocated to reduce further fragmentation of the SEA. The adverse effects that are not able to be avoided will be mitigated through the proposed ecological plans. It is also proposed to undertake remediation planting for a total of 22.19 ha of the Project from Year 1 of the Project and continue every year after that for the total 45-year period of the operation.</p> <p>To address any residual adverse effects, the applicant proposes predator-proof fence, replanting and enhancement options that can ensure biodiversity 'net gain' is achieved. This is discussed in more detail in the Terrestrial Ecology Residual Effects Analysis Report attached as Appendix 18, however in summary, the offset and compensation actions include:</p> <ul style="list-style-type: none"> • Construct a predator-proof fence encompassing 60ha of land; • Undertake 61.8ha of revegetation (29.18ha within the predator-proof fence and 32.63ha occurring outside the fence); • Pest browser control of the remaining existing vegetation outside the predator-proof fence (57.52ha); • Provision of enrichment planting to all existing vegetation (88.28ha) both within and outside the fence; • Weed control; <p>When both objectives 1 and 2 are read together and having regard to the zoning of the site and the extensive offsetting and compensation package proposed, noting that the D9.3 policies contemplate off-setting, the Project will enhance indigenous biodiversity values. While the proposal might be considered inconsistent with D9.2.1, it is not considered contrary this objective. We consider the proposal to be consistent with D9.2.2 given the offsetting package proposed.</p>
(3) The relationship of Mana Whenua and their customs and traditions with indigenous vegetation and fauna is recognised and provided for.	<p>The applicant has actively engaged and consulted with Mana Whenua as part of this Project and will continue to engage and consult with Mana Whenua throughout the further stages of the Project. The proposed conditions of consent</p>

D9. Significant Ecological Areas Overlay

include opportunities for cultural monitoring and cultural inductions. In addition, the Project includes measures that will of interest to iwi:

- The replanting proposed at Oldfield Road and Hellyer offset and compensation sites will operate under the Accidental Discovery Protocol.
- All plants to be planted will be eco-sourced.
- All replanting and enhancement of existing planting are subject to pest and weed control measures.
- Appropriate ecological management plans will be in place (and proposed as conditions of consent) as it relates to the offset planting and potential relocation of species.
- Erosion and sediment control measures will be in place throughout the lifetime of the quarry to minimise sediment runoff to the receiving environment.
- The applicant is committed to minimising the amount of overburden product/waste.
- A Kauri Dieback Management Plan is proposed as a condition of consent.

It is noted that ongoing engagement and consultation will continue throughout the further stages of the Project. Overall, we consider that the proposal is consistent with this objective.

D9.3. Policies [rcp/rp/dp]

Managing effects on significant ecological areas – terrestrial and marine

(1) Manage the effects of activities on the indigenous biodiversity values of areas identified as significant ecological areas by:

(a) avoiding adverse effects on indigenous biodiversity in the coastal environment to the extent stated in Policies D9.3(9) and (10);

(b) avoiding other adverse effects as far as practicable, and where avoidance is not practicable, minimising adverse effects on the identified values;

(c) remedying adverse effects on the identified values where they cannot be avoided;

This policy specifically provides for an effects management hierarchy assessment which is considered to be met for the reasons provided above.

D9. Significant Ecological Areas Overlay

(d) mitigating adverse effects on the identified values where they cannot be avoided or remediated; and
(e) considering the appropriateness of offsetting any residual adverse effects that are significant and where they have not been able to be mitigated, through protection, restoration and enhancement measures, having regard to Appendix 8 Biodiversity offsetting.

(2) Adverse effects on indigenous biodiversity values in significant ecological areas that are required to be avoided, remedied, mitigated or offset may include, but are not limited to, any of the following:

- (a) fragmentation of, or a reduction in the size and extent of, indigenous ecosystems and the habitats of indigenous species;
- (b) fragmentation or disruption of connections between ecosystems or habitats;
- (c) changes which result in increased threats from pests on indigenous biodiversity and ecosystems;
- (d) loss of buffering of indigenous ecosystems;
- (e) loss of a rare or threatened individual, species population or habitat;
- (f) loss or degradation of originally rare ecosystems including wetlands, dune systems, lava forests, coastal forests;
- (g) a reduction in the abundance of individuals within a population, or natural diversity of indigenous vegetation and habitats of indigenous fauna;
- (h) loss of ecosystem services;
- (i) effects which contribute to a cumulative loss or degradation of habitats, species populations and ecosystems;
- (j) impacts on species or ecosystems that interact with other activities, or impacts that exacerbate or cause adverse effects in synergistic ways;
- (k) loss of, or damage to, ecological mosaics, sequences, processes, or integrity;
- (l) downstream effects on wetlands, rivers, streams, and lakes from hydrological changes further up the catchment;

D9. Significant Ecological Areas Overlay

<p>(m) a modification of the viability or value of indigenous vegetation and habitats of indigenous fauna as a result of the use or development of other land, freshwater, or coastal resources;</p> <p>(n) a reduction in the historical, cultural, and spiritual association held by Mana Whenua or the wider community;</p> <p>(o) the destruction of, or significant reduction in, educational, scientific, amenity, historical, cultural, landscape, or natural character values;</p> <p>(p) disturbance to indigenous fauna that is likely or known to increase threats, disturbance or pressures on indigenous fauna; or</p> <p>(q) increases in the extinction probability of a species</p>	
<p>(3) Enhance indigenous biodiversity values in significant ecological areas through any of the following:</p> <p>(a) restoration, protection and enhancement of threatened ecosystems and habitats for rare or threatened indigenous species;</p> <p>(b) control, and where possible, eradication of plant and animal pests;</p> <p>(c) fencing of significant ecological areas to protect them from stock impacts;</p> <p>(d) legal protection of significant ecological areas through covenants or similar mechanisms;</p> <p>(e) development and implementation of management plans to address adverse effects;</p> <p>(f) re-vegetating areas using, where possible, indigenous species sourced from naturally growing plants in the vicinity with the same climactic and environmental conditions; or</p> <p>(g) providing for the role of Mana Whenua as kaitiaki and for the practical exercise of kaitiakitanga in restoring, protecting and enhancing areas.</p>	<p>The applicant proposes predator-proof fence, replanting and enhancement options that can ensure biodiversity 'net gain' is achieved. This is discussed in more detail in the Terrestrial Ecology Residual Effects Analysis Report attached as Appendix 18.</p> <p>Of relevance to this policy, approximately 90.64ha (including the pit area) is subject to pest animal control methods. In addition, approximately 3.52ha of 'edge effects planting' is proposed at 306 Pebble Brook Road alongside existing SEA vegetation and 2.88ha of 'buffer planting' is proposed along the edge of the quarry footprint. Further, as noted above, the conditions of consent include the requirement of a cultural induction, as well as provision for cultural monitoring.</p> <p>It is anticipated that engagement and consultation with iwi groups that have registered their interest in this Project will continue throughout the Project, in particular as it relates to the replanting and enhancement works proposed.</p> <p>For this reason, the proposal is considered to be consistent with D9.3.3 and D9.3.4.</p>
<p>(4) Enable activities which enhance the ecological integrity and functioning of significant ecological areas including:</p> <p>(a) the management and control of pest species that threaten indigenous</p>	<p>The Proposal involves management and control of pest species within the Site as noted above. The works will be carried out in accordance with best practice protocols for managing kauri dieback disease. The preparation and</p>

D9. Significant Ecological Areas Overlay	
<p>biodiversity; and</p> <p>(b) managing works in the vicinity of kauri, such as deadwood removal or earthworks, to control kauri dieback disease by preventing the spread of soil and kauri plant material.</p>	<p>implementation of a Kauri Dieback Management Plan is included as a condition of consent.</p> <p>For this reason, the proposal is considered to be consistent with D9.3.3 and D9.3.4.</p>
<p>Vegetation management</p> <p>(5) Enable the following vegetation management activities in significant ecological areas to provide for the reasonable use and management of land:</p> <p>(a) trimming of vegetation;</p> <p>(b) vegetation removal to maintain existing open areas, including tracks;</p> <p>(c) vegetation removal to establish and maintain a reasonable cleared area around a building;</p> <p>(d) vegetation removal required to maintain lawfully established activities, structures and buildings;</p> <p>(e) vegetation removal necessary to provide for a dwelling on a site;</p> <p>(f) vegetation removal necessary to provide for marae and papakainga on Māori land;</p> <p>(g) vegetation removal in areas of high wildfire risk to manage this risk; and</p> <p>(h) vegetation removal necessary to provide access and exit for emergency service vehicles.</p>	<p>This policy is considered to be met for the reasons provided above</p>
<p>(6) While also applying Policies D9.3(9) and (10) in the coastal environment, avoid as far as practicable the removal of vegetation and loss of biodiversity in significant ecological areas from the construction of building platforms, access ways or infrastructure, through:</p> <p>(a) using any existing cleared areas on a site to accommodate new development in the first instance;</p> <p>(b) assessing any practicable alternative locations and/or methods that would reduce the need for vegetation removal or land disturbance;</p> <p>(c) retaining indigenous vegetation and natural features which contribute to the</p>	<p>As noted above, it is not practicable to avoid adverse effects on the identified indigenous biodiversity values of the SEA, however, the more valuable areas of vegetation have been avoided and the A-Pit has been relocated to reduce further fragmentation of the SEA. Erosion and sediment control measures will be in place throughout the lifetime of the quarry to appropriately manage sediment runoff to natural waterways.</p>

D9. Significant Ecological Areas Overlay

ecological significance of a site, taking into account any loss that may be unavoidable to create a single building platform for a dwelling and associated services, access and car parking on a site;

(d) designing and locating dwellings and other structures to reduce future demands to clear or damage areas of significant indigenous biodiversity, for example to provide sunlight or protect property;

(e) avoiding as far as practicable any changes in hydrology which could adversely affect indigenous biodiversity values;

(f) implementing measures to maintain existing water quality and not increase the amount of sediment entering natural waterways, wetlands and groundwater;

and

(g) using techniques that minimise the effects of construction and development on vegetation and biodiversity and the introduction and spread of animal and plant pests

(7) Provide for the role of Mana Whenua as kaitiaki in managing biodiversity, particularly in Treaty Settlement areas, and for cultural practices and cultural harvesting in significant ecological areas where the mauri of the resource is sustained.

This policy is considered to be met for the reasons provided above.

(8) Manage the adverse effects from the use, maintenance, upgrade and development of infrastructure in accordance with the policies above, recognising that it is not always practicable to locate and design infrastructure to avoid significant ecological areas.

As noted above, it is not practicable to avoid adverse effects on the identified indigenous biodiversity values of the SEA, however the more valuable areas of vegetation have been avoided and the A-Pit has been relocated to reduce further fragmentation of the SEA.

Significant Ecological Areas in the Special Purpose – Quarry Zone (Brookby and Drury Quarries only (excluding SEA_T_5349), which are shown in Figure E15.10.1 Brookby Quarry extent and Figure E15.10.2 Drury Quarry extent respectively).

(8A) Manage the removal of vegetation within significant ecological areas to provide for mineral extraction activities within a Special Purpose Quarry Zone (Brookby and Drury Quarries only (excluding SEA_T_5349)), provided that, any significant adverse effects:

This policy is not considered relevant as this specifically relates to Brookby and Drury Quarries only.

D9. Significant Ecological Areas Overlay

(a) from excavating minerals including removal of overburden are mitigated or offset; or

(b) from other mineral extraction activities not within (a) are first avoided, and, if avoidance is not practicable having regard to the need to operate a safe and efficient quarry, are remedied, mitigated or offset;

while:

promoting where practicable the implementation of mitigation or offset planting or other measures prior to any removal of vegetation; and

(i) having regard to matters 1 (noting that the activities described in 8A(a) above are only required to mitigate or offset significant adverse effects), 2 (in respect to additionality), 3, 4 and 5 in Appendix 8 Biodiversity Offsetting, including taking account of the environmental benefits of undertaking actions in advance of any vegetation removal.

Protecting significant ecological areas in the coastal environment

(9) Avoid activities in the coastal environment where they will result in any of the following:

(a) non-transitory or more than minor adverse effects on:

(i) threatened or at risk indigenous species (including Maui's Dolphin and Bryde's Whale);

(ii) the habitats of indigenous species that are at the limit of their natural range or which are naturally rare;

(iii) threatened or rare indigenous ecosystems and vegetation types, including naturally rare ecosystems and vegetation types;

(iv) areas containing nationally significant examples of indigenous ecosystems or indigenous community types; or

(v) areas set aside for full or partial protection of indigenous biodiversity under other legislation, including the West Coast North Island Marine Mammal Sanctuary.

(b) any regular or sustained disturbance of migratory bird roosting, nesting and feeding areas that is likely to noticeably reduce the level of use of an area for

This policy is not considered relevant as the site is not located in the coastal environment.

D9. Significant Ecological Areas Overlay	
these purposes; or (c) the deposition of material at levels which would adversely affect the natural ecological functioning of the area.	
<p>(10) Avoid (while giving effect to Policy D9.3(9) above) activities in the coastal environment which result in significant adverse effects, and avoid, remedy or mitigate other adverse effects of activities, on:</p> <p>(a) areas of predominantly indigenous vegetation;</p> <p>(b) habitats that are important during the vulnerable life stages of indigenous species;</p> <p>(c) indigenous ecosystems and habitats that are found only in the coastal environment and are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh;</p> <p>(d) habitats of indigenous species that are important for recreational, commercial, traditional or cultural purposes including fish spawning, pupping and nursery areas;</p> <p>(e) habitats, including areas and routes, important to migratory species;</p> <p>(f) ecological corridors, and areas important for linking or maintaining biological values; or</p> <p>(g) water quality such that the natural ecological functioning of the area is adversely affected.</p>	This policy is not considered relevant as the site is not located in the coastal environment.
<p>(11) In addition to Policies D9.3(9) and (10), avoid subdivision, use and development in the coastal environment where it will result in any of the following:</p> <p>(a) the permanent use or occupation of the foreshore and seabed to the extent that the values, function or processes associated with any Significant Ecological Area – Marine is significantly reduced;</p> <p>(b) any change to physical processes that would destroy, modify, or damage any natural feature or values identified for a Significant Ecological Area – Marine in more than a minor way; or</p>	This policy is not considered relevant as the site is not located in the coastal environment.

D9. Significant Ecological Areas Overlay	
(c) fragmentation of the values of a Significant Ecological Area – Marine to the extent that its physical integrity is lost.	
<p>(12) Manage the adverse effects of use and development on the values of Significant Ecological Areas – Marine, in addition to the policies above, taking into account all of the following:</p> <p>(a) the extent to which existing use and development already, and in combination with any proposal, impacts on the habitat, or impedes the operation of ecological and physical processes;</p> <p>(b) the extent to which there are similar habitat types within other Significant Ecological Areas – Marine in the same harbour or estuary or, where the significant ecological area - marine is located on open coast, within the same vicinity; and</p> <p>(c) whether the viability of habitats of regionally or nationally threatened plants or animals is adversely affected, including the impact on the species population and location</p>	This policy is not considered relevant as the site is not located in the coastal environment.
<p>(13) In addition to Policies D9.3(9) and (10), avoid structures in Significant Ecological Areas – Marine 1 (SEA-M1) except where a structure is necessary for any of the following purposes:</p> <p>(a) scientific and research purposes, or for public education, and will enhance the understanding and long-term protection of the significant ecological area;</p> <p>(b) navigation and safety;</p> <p>(c) habitat maintenance and enhancement; or</p> <p>(d) to benefit the regional and national community, including structures for significant infrastructure where there is no reasonable or practicable alternative location on land, or elsewhere in the coastal marine area outside of a Significant Ecological Area – Marine 1(SEA-M1).</p>	This policy is not considered relevant as the site is not located in the coastal environment.
(14) In addition to Policies D9.3(9) and (10), avoid the extension to, or alteration of, any existing lawful structure in Significant Ecological Areas – Marine 1 (SEA-M1) unless all of the following can be demonstrated:	This policy is not considered relevant as the site is not located in the coastal environment.

D9. Significant Ecological Areas Overlay

<p>(a) that the existing structure has no significant adverse effects on the values and ecological and physical processes operating in the significant ecological area;</p> <p>(b) that the extension or alteration will not involve significant disturbance of foreshore or seabed, clearance of indigenous vegetation, or significantly increase the need to dredge in order to obtain access to the structure; and</p> <p>(c) that the purpose of the extension cannot practicably be met by a land-based alternative.</p>	
<p>(15) Avoid mangrove removal within Significant Ecological Areas – Marine where it will threaten the viability or significance of the ecological values identified.</p>	<p>This policy is not considered relevant as the site is not located in the coastal environment.</p>
<p>(16) Avoid mangrove removal within Significant Ecological Areas – Marine 1 (SEAM1) unless the removal is for any of the following purposes:</p> <p>(a) to maintain or enhance the ecological values of the significant ecological marine area, where it is demonstrated these values are being adversely affected by mangrove colonisation;</p> <p>(b) to maintain or restore the open nature of the wading bird feeding and roosting areas identified in Appendix 5 Wading bird areas;</p> <p>(c) to enable the reasonable operation, maintenance and use of lawful structures and/or to allow for the efficient functioning of drainage systems; or</p> <p>(d) to enable the provision, maintenance and use of public infrastructure, such as roads, walkways and drainage systems, and any associated public health and safety requirements, where there is no practicable alternative location outside the significant ecological area that would achieve a better environmental outcome.</p>	<p>This policy is not considered relevant as the site is not located in the coastal environment.</p>
<p>(17) Enable mangrove seedling removal in Significant Ecological Areas – Marine 1 (SEA-M1) that do not have significant values associated with mangroves and that are identified in Schedule 5 Significant Ecological Areas – Marine where mangroves are a minor component or absent.</p>	<p>This policy is not considered relevant as the site is not located in the coastal environment.</p>

E2 Water quantity, allocation and use	
Relevant Objective / Policy	Assessment
E2.2. Objectives [rp]	
(1) Water in surface rivers and groundwater aquifers is available for use provided the natural values of water are maintained and established limits are not exceeded.	<p>It is not anticipated that the anticipated groundwater drawdown as a result of the quarry activities will affect groundwater aquifer availability, as no bores within the area that would be affected by the anticipated groundwater drawdown. It is also anticipated that the proposed quarry activities will not affect minimum flow requirements of rivers and streams.</p> <p>This is discussed in the Groundwater Effects Report attached as Appendix 21.</p>
(2) Water resources are managed within limits to meet current and future water needs for social, cultural and economic purposes.	
(3) Freshwater resources available for use are managed and allocated in order of priority to provide for domestic and municipal water supplies, animals, and economic development.	
(4) Water resources are managed to maximise the efficient allocation and efficient use of available water.	
(5) Mana Whenua values including the mauri of water, are acknowledged in the allocation and use of water.	<p>The applicant has actively engaged and consulted with Mana Whenua as part of this Project and will continue to engage and consult with Mana Whenua throughout the further stages of the Project. In particular, the proposed conditions of consent include opportunities for cultural monitoring and cultural inductions. Further, erosion and sediment control measures will be in place throughout the lifetime of the quarry to minimise sediment runoff to the receiving environment. It is anticipated that engagement and consultation with iwi groups that have registered their interest in this project will continue throughout the Project.</p>
E2.3. Policies [rp]	
<p><i>Diversion of groundwater</i></p> <p>(23) Require proposals to divert groundwater, in addition to the matters addressed in Policy E2.3(6) and (7) above, to ensure that:</p> <p>(a) the proposal avoids, remedies or mitigates any adverse effects on:</p> <p>(i) scheduled historic heritage places and scheduled sites and places of significance to Mana Whenua; and</p> <p>(ii) people and communities.</p>	<p>In terms of any settlement effects associated with the groundwater drawdown on neighbouring buildings, structures and infrastructure, this is considered to be minor given the underlying geology of the site and surrounding sites which consists of Albany Conglomerate which is effectively non-compressible. The excavation associated with quarry will not increase flood risk in the area. Further, a groundwater monitoring plan is proposed as a condition of consent.</p>

E2 Water quantity, allocation and use	
<p>(b) the groundwater diversion does not cause or exacerbate any flooding;</p> <p>(c) monitoring has been incorporated where appropriate, including:</p> <p>(i) measurement and recording of water levels and pressures; and</p> <p>(ii) measurement and recording of the movement of ground, buildings and other structures.</p> <p>(d) mitigation has been incorporated where appropriate including:</p> <p>(i) minimising the period where the excavation is open/unsealed;</p> <p>(ii) use of low permeability perimeter walls and floors;</p> <p>(iii) use of temporary and permanent systems to retain the excavation; or</p> <p>(iv) re-injection of water to maintain groundwater pressures.</p>	
<p><i>Quarrying</i></p> <p>(25) Enable regionally significant mineral extraction activities (extraction within groundwater and dewatering) provided that significant adverse effects are managed through considering all of the relevant policies in this section.</p>	<p>It is not anticipated that there will be significant adverse effects associated with groundwater drawdown as discussed in the application material.</p>

E3. Lakes, rivers, streams and wetlands	
Relevant Objective / Policy	Assessment
E3.2. Objectives [rp]	
<p>(1) Auckland's lakes, rivers, streams and wetlands with high natural values are protected from degradation and permanent loss.</p>	<p>Objective 1 should be read in the context of Objectives 2 and 3. In this case, avoidance of stream loss is not possible for the quarry activity to occur on a site zoned for quarry purposes. In our view, retention of the extent of the stream is not practicable given that the wider Kings Quarry property is scattered with many watercourses. There is a clear functional need for the quarrying to occur on the site because that is where the aggregate is located, which is supported by the Special Purpose – Quarry Zoning of the site.</p> <p>As contemplated by Objectives 2 and 3, it is proposed to provide aquatic offsetting through the restoration of 2,893 linear metres of stream via 10m riparian planting and removal of fish barriers. Aquatic compensation is also</p>
<p>(2) Auckland's lakes, rivers, streams and wetlands are restored, maintained or enhanced.</p>	
<p>(3) Significant residual adverse effects on lakes, rivers, streams or wetlands that cannot be avoided, remedied or mitigated are offset where this will promote the purpose of the Resource Management Act 1991.</p>	

E3. Lakes, rivers, streams and wetlands

	<p>provided through 6,400m² of wetland restoration via wetland and buffer planting and fencing. It is also proposed to compensate the loss of stream extent through the removal of the weir within Waitoki Stream which will restore the connectivity of approximately 3.4km of stream extent. The offset and compensation sites that were selected is within the same ecological district (Rodney district).</p> <p>It is also proposed to remediate the loss of stream extent through the removal of the weir from Waitoki Stream which will restore the connectivity of approximately 3.4km of stream extent. This will result in the restoration of stream hydrology, sediment transportation and the movement of aquatic fauna through all life stages. This will increase fish biodiversity, and restore habitats and natural stream processes through the upper Waitoki Catchment.</p> <p>Therefore, in our view the objectives are wider than just avoiding the loss of streams within the site but rather must also consider the watercourses being restored and enhanced. We consider that Objective 1 should be read in the context of Objectives 2 and 3 (and supporting Policies) which contemplate off-setting. Based on the analysis provided, the proposal is consistent with these objectives.</p>
(4) Structures in, on, under or over the bed of a lake, river, stream or wetland are provided for where there are functional or operational needs for the structure to be in that location, or traverse that area.	No structures over a stream are required as part of this Proposal.
(5) Activities in, on, under or over the bed of a lake, river, stream and wetland are managed to minimise adverse effects on the lake, river, stream or wetland.	In our view the objective is wider than just avoiding the loss of streams within the site but also requires consideration of whether activities in or on watercourses are being managed to minimise adverse effects. An Erosion and Sediment Control Plan will be in place throughout the lifetime of the quarry to minimise sediment run off to streams that are retained. On this basis, the proposal is consistent with this objective.
(6) Reclamation and drainage of the bed of a lake, river, stream and wetland is avoided, unless there is no practicable alternative.	This objective specifically contemplates reclamation/drainage activities where there is no practicable alternative. As noted above, retention of the extent of the stream is not practicable given that that the wider Kings Quarry property is scattered with many watercourses however, the pit design avoids permanent streams to the greatest extents possible.

E3. Lakes, rivers, streams and wetlands

National Policy Statement for Freshwater Management 2020

The National Policy Statement for Freshwater Management 2020 requires the following objective to be inserted into regional plans under section 55 of the Resource Management Act 1991 without using the process in schedule 1 in the Resource Management Act 1991.

Fish passage

(7) The passage of fish is maintained, or is improved, by instream structures, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.

The removal of the weir from Waitoki Stream will significantly improve passage of fish. Bioresarches note that only species capable of climbing such as eel, and juvenile banded kokopu, would be able navigate the existing weir to access the upstream reach. It is also likely a common bully breeding population has established within the upper Waitoki Stream prior to the weir installation, and has become “landlocked”. The removal of the weir will therefore restore connectivity of approximately 3.4km of stream extent. This will result in the restoration of stream hydrology, sediment transportation and the movement of aquatic fauna through all life stages. This will increase fish biodiversity, and restore habitats and natural stream processes through the upper Waitoki Catchment.

E3.3. Policies [rp]

General

(1) Avoid significant adverse effects, and avoid where practicable or otherwise remedy or mitigate other adverse effects of activities in, on, under or over the beds of lakes, rivers, streams or wetlands within the following overlays:

- (a) D4 Natural Stream Management Areas Overlay;
- (b) D5 Natural Lake Management Areas Overlay;
- (c) D6 Urban Lake Management Areas Overlay;
- (d) D9 Significant Ecological Areas Overlay; and
- (e) D8 Wetland Management Areas Overlay.

In our view the policies are wider than just avoiding the loss of streams within the site but also require consideration of the watercourses being restored and enhanced. It is also relevant to note that Policy E3.3(13)(b)(iii) provides an exception to mineral extraction activities to the avoidance policy associated with the reclamation and drainage of the beds of lakes, rivers, streams and wetlands. On this basis, the proposal is consistent with this policy.

(2) Manage the effects of activities in, on, under or over the beds of lakes, rivers, streams or wetlands outside the overlays identified in Policy E3.3(1) by:

- (a) avoiding where practicable or otherwise remedying or mitigating any adverse effects on lakes, rivers, streams or wetlands; and
- (b) where appropriate, restoring and enhancing the lake, river, stream or wetland

This policy refers to stream outside the overlays identified in Policy E3.3(1). This policy is therefore not relevant as all the streams to be removed as part of this Proposal are subject to the SEA overlay.

(3) Enable the enhancement, maintenance and restoration of lakes, rivers, streams or wetlands.

The removal of the weir from Waitoki Stream will significantly improve passage of fish thereby enhancing freshwater habitat. Further, it is proposed to provide aquatic offsetting through the restoration and enhancement of 2,893 linear metres of stream via 10m riparian planting and removal of fish barriers and

E3. Lakes, rivers, streams and wetlands

<p>(4) Restoration and enhancement actions, which may form part of an offsetting proposal, for a specific activity should:</p> <ul style="list-style-type: none"> (a) be located as close as possible to the subject site; (b) be 'like-for-like' in terms of the type of freshwater system affected; (c) preferably achieve no net loss or a net gain in the natural values including ecological function of lakes, rivers, streams or wetlands; and (d) consider the use of biodiversity offsetting as outlined in Appendix 8 Biodiversity offsetting. <p>Note 1</p> <p>When having regard to Policy E3.3(4) above, the following documents or any updated version of them should be referred to:</p> <ul style="list-style-type: none"> • Auckland Council Technical Report 2011/009: Stream Ecological Valuation (SEV): a method for assessing the ecological functions of Auckland Streams (October 2011) for guidance on how the location and extent of any offset may be calculated and assessed; and • Guidance on Good Practice Biodiversity Offsetting in New Zealand, New Zealand Government et al, August 2014. <p>Neither of these reference documents has precedence. An acceptable offsetting proposal may combine elements from both documents.</p>	<p>aquatic compensation through 6,400m² of wetland restoration via wetland and buffer planting and fencing.</p> <p>The freshwater offsetting and compensation proposed as noted above and discussed in detail at Appendix 18 will ensure biodiversity 'net gain' is achieved. The loss of stream extent cannot be practicably offset and therefore this loss is proposed to be compensated for through wetland restoration.</p> <p>Consideration has been given to (a) to (d) as follows:</p> <ul style="list-style-type: none"> • (a) The offset and compensation site areas are located approximately 1.5km and 26km from the site. In addition, the removal of the weir from Waitoki Stream (located with the subject site) will restore connectivity of approximately 3.4km of stream extent • (b) While the offset and compensation sites are not strictly 'like for like' in terms of the freshwater system, they are located within the same ecological district and there are similarities in the fish species recorded with the affected and offsite streams. • (c) It was concluded that following the implementation of freshwater offset and compensation actions, biodiversity 'net gain' is anticipated. • (d) the freshwater offsetting proposal has been undertaken in accordance with Appendix 8 of the AUP (OP).
<p>(5) Avoid significant adverse effects, and avoid, remedy or mitigate other adverse effects of activities in, on, under or over the beds of lakes, rivers, streams or wetlands on:</p> <ul style="list-style-type: none"> (a) the mauri of the freshwater environment; and (b) Mana Whenua values in relation to the freshwater environment. 	<p>We note that Mana Whenua are best placed to comment on mauri and their values. While we acknowledge that the loss of stream is a significant adverse effect, it is considered that the Project is consistent with this policy for the following reasons:</p> <ul style="list-style-type: none"> • As noted above, the applicant has actively engaged and consulted with Mana Whenua. The mauri of the freshwater environment and mana whenua values in relation to freshwater environment has been recognised in the Project through the proposed stream restoration as part of the freshwater offsetting

E3. Lakes, rivers, streams and wetlands

	<p>package including the removal of weir from Waitoki Stream which currently acts as a significant fish barrier.</p> <ul style="list-style-type: none"> • The proposed conditions of consent include opportunities for cultural monitoring and cultural inductions. • Erosion and sediment control measures will be in place throughout the lifetime of the quarry to minimise sediment runoff to the receiving freshwater environment. • It is anticipated that engagement and consultation with iwi groups that have registered their interest in this project will continue throughout the Project, in particular as it relates to the replanting and enhancement.
<p>(6) Manage the adverse effects on Mana Whenua cultural heritage that is identified prior to, or discovered during, subdivision, use and development by:</p> <p>(a) complying with the protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin;</p> <p>(b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and</p> <p>(c) undertaking appropriate measures to avoid adverse effects, or where adverse effects cannot be avoided, effects are remedied or mitigated.</p>	<p>The proposed conditions of consent include opportunities for cultural monitoring and cultural inductions to manage adverse effects on Mana Whenua cultural heritage. In addition, the Project includes measures such as:</p> <ul style="list-style-type: none"> • The replanting proposed at the Oldfield Road and Hellyer Road sites will operate under the Accidental Discovery Protocol. • All plants to be planted will be eco-sourced. • All replanting and enhancement of existing planting are subject to pest and weed control measures. • Appropriate ecological management plans will be in place (and proposed as conditions of consent) as it relates to the offset planting and potential relocation of species. • Erosion and sediment control measures will be in place throughout the lifetime of the quarry to minimise sediment runoff to the receiving environment. • The applicant is committed to minimise the amount of overburden product/waste. • A Kauri Dieback Management Plan is proposed as a condition of consent.

E3. Lakes, rivers, streams and wetlands

Reclamation and drainage

(13) Avoid the reclamation and drainage of the bed of lakes, rivers, streams and wetlands, including any extension to existing reclamations or drained areas unless all of the following apply:

- (a) there is no practicable alternative method for undertaking the activity outside the lake, river, stream or wetland;
- (b) for lakes, permanent rivers and streams, and wetlands the activity is required for any of the following:
 - (i) as part of an activity designed to restore or enhance the natural values of any lake, river, stream or wetland, any adjacent area of indigenous vegetation or habitats of indigenous fauna;
 - (ii) for the operation, use, maintenance, repair, development or upgrade of infrastructure; or
 - (iii) to undertake mineral extraction activities; and
- (c) the activity avoids significant adverse effects and avoids, remedies or mitigates other adverse effects on Mana Whenua values associated with freshwater resources, including wāhi tapu, wāhi taonga and mahinga kai.

This policy is considered to be met for the reasons provided above. In particular:

- (a) Retention of the extent of the stream not practicable given that that the wider Kings Quarry property is scattered with many watercourses however, the pit design avoids permanent streams to the greatest extent possible.
- (b) The Proposal is to undertake mineral extraction activities.
- (c) As noted above, the applicant has actively engaged and consulted with Mana Whenua as part of this Project and will continue to engage and consult with Mana Whenua throughout the further stages of the Project.

Riparian margins

(15) Protect the riparian margins of lakes, rivers, streams, and wetlands from inappropriate use and development and promote their enhancement to through all of the following:

- (a) safeguard habitats for fish, plant and other aquatic species, particularly in rivers and streams with high ecological values;
- (b) safeguard their aesthetic, landscape and natural character values;
- (c) safeguard the contribution of natural freshwater systems to the biodiversity, resilience and integrity of ecosystems; and
- (d) avoid or mitigate the effects of flooding, surface erosion, stormwater contamination, bank erosion and increased surface water temperature.

Similar to the above, in our view the objectives and policies are wider than just avoiding the loss of streams and riparian margins within the Site but rather also require consideration of the watercourses being restored and enhanced. It is also relevant to note that Policy E3.3(13)(b)(iii) provides an exception to mineral extraction activities to the avoidance policy associated with the reclamation and drainage of the beds of lakes, rivers, streams and wetlands. On this basis, the proposal is consistent with this policy.

E3. Lakes, rivers, streams and wetlands

National Policy Statement for Freshwater Management 2020

The National Policy Statement for Freshwater Management 2020 requires the following policies to be inserted into regional plans under section 55 of the Resource Management Act 1991 without using the process in schedule 1 in the Resource Management Act 1991.

Natural inland wetlands

- (17) The loss of extent of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where:
- (a) the loss of extent or values arises from any of the following:
 - (i) the customary harvest of food or resources undertaken in accordance with tikanga Māori
 - (ii) wetland maintenance, restoration, or biosecurity (as defined in the National Policy Statement for Freshwater Management)
 - (iii) scientific research
 - (iv) the sustainable harvest of sphagnum moss
 - (v) the construction or maintenance of wetland utility structures (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020)
 - (vi) the maintenance or operation of specified infrastructure, or other infrastructure (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020
 - (vii) natural hazard works (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020); or
 - (b) the regional council is satisfied that:
 - (i) the activity is necessary for the purpose of the construction or upgrade of specified infrastructure; and

This policy is not relevant as there are no wetlands identified within the Project area.

E3. Lakes, rivers, streams and wetlands

- (ii) the specified infrastructure will provide significant national or regional benefits; and
- (iii) there is a functional need for the specified infrastructure in that location; and
- (iv) the effects of the activity are managed through applying the effects management hierarchy; or
- (c) the regional council is satisfied that:
 - (i) the activity is necessary for the purpose of urban development that contributes to a well-functioning urban environment (as defined in the National Policy Statement on Urban Development); and
 - (ii) the urban development will provide significant national, regional or district benefits; and
 - (iii) the activity occurs on land identified for urban development in operative provisions of a regional or district plan; and
 - (iv) the activity does not occur on land that is zoned in a district plan as general rural, rural production or rural lifestyle; and
 - (v) there is either no practicable alternative location for the activity within the area of development, or every other practicable location in the area of the development would have equal or greater adverse effects on a natural inland wetland; and
 - (vi) the effects of the activity will be managed through applying the effects management hierarchy; or
- (d) the regional council is satisfied that:
 - (i) the activity is necessary for the purpose of quarrying activities; and
 - (ii) the extraction of the aggregate will provide significant national or regional benefits; and
 - (iii) there is a functional need to the activity to be done in that location; and
 - (iv) the effects of the activity will be managed through applying the effects management hierarchy; or

E3. Lakes, rivers, streams and wetlands

(e) the regional council is satisfied that:

(i) the activity is necessary for the purpose of:

- the extraction of minerals (other than coal) and ancillary activities; or
- the extraction of coal and ancillary activities as part of the operation or extension of an existing coal mine; and

(ii) the extraction of the mineral will provide significant national or regional benefits; and

(iii) there is a functional need for the activity to be done in that location; and

(iv) the effects of the activity will be managed through applying the effects management hierarchy; or

(f) the regional council is satisfied that:

(i) the activity is necessary for the purpose of constructing or operating a new or existing landfill or cleanfill area; and

(ii) the landfill or cleanfill area:

- will provide significant national or regional benefits; or
- is required to support urban development as referred to in paragraph (c); or
- is required to support the extraction of aggregates as referred to in paragraph (d); or
- is required to support the extraction of minerals as referred to in paragraph (e); and

(iii) there is either no practicable alternative location in the region, or every other practicable alternative location in the region would have equal or greater adverse effects on a natural inland wetland; and

(iv) the effects of the activity will be managed through applying the effects management hierarchy.

Rivers

(18) The loss of river extent and values is avoided, unless the council is satisfied:

This policy is considered to be met for the reasons provided above and as discussed in the Ecological Impact Assessment included as **Appendix 9**.

E3. Lakes, rivers, streams and wetlands

- (a) that there is a functional need for the activity in that location; and
(b) the effects of the activity are managed by applying the effects management hierarchy.

E11 Land disturbance – Regional

Relevant Objective / Policy

Assessment

E11.2. Objectives [rp]

- (1) Land disturbance is undertaken in a manner that protects the safety of people and avoids, remedies or mitigates adverse effects on the environment.
(2) Sediment generation from land disturbance is minimised.
(3) Land disturbance is controlled to achieve soil conservation.

Land disturbance is required to undertake mineral extraction activities within the Special Purpose – Quarry zoned-land. The standards set out in Chapter E11 and E12 of the AUP will sufficiently manage the effects of earthworks and relevant consent conditions will ensure that sediment generation from land disturbance is minimised, and land disturbance is undertaken in a manner that protects the safety of people and avoids, remedies and mitigates adverse effects on the environment.

During land disturbance, it is proposed to install sediment and erosion control measures (provided for as conditions of consent) to manage and appropriately avoid and mitigate adverse environmental effects. Sediment and erosion control measures will be designed in accordance with the Auckland Council guidelines prescribed in Guideline Document 005 (Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region) to ensure that 75% of sediment is removed from stormwater runoff prior to discharge from the site. An Erosion and Sediment Control Plan has been prepared (attached as **Appendix 14**) and the works will be carried out in accordance with the measures specified.

On the basis of the above and noting that best practicable erosion and sediment control measures will be implemented on the site, it is considered that any adverse effects associated with earthworks including silt and sediment runoff (and resulting effects on water quality) will be less than minor.

If any sensitive material is discovered, accidental discovery protocols will be followed.

E11 Land disturbance – Regional

For the reasons above, it is considered that the Proposal is in keeping with the relevant objectives and policies for regional and district land disturbance.

E11.3. Policies [rp]

(1) Avoid where practicable, and otherwise mitigate, or where appropriate, remedy adverse effects on areas where there are natural and physical resources that have been scheduled in the Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character.

(2) Manage land disturbance to:

(a) retain soil and sediment on the land by the use of best practicable options for sediment and erosion control appropriate to the nature and scale of the activity;

(b) manage the amount of land being disturbed at any one time, particularly where the soil type, topography and location is likely to result in increased sediment runoff or discharge;

(c) avoid, remedy or mitigate adverse effects on accidentally discovered sensitive material; and

(d) maintain the cultural and spiritual values of Mana Whenua in terms of land and water quality, preservation of wāhi tapu, and kaimoana gathering.

(3) Manage the impact on Mana Whenua cultural heritage that is discovered undertaking land disturbance by:

(a) requiring a protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin;

(b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and

(c) undertaking appropriate measures to avoid adverse effects. Where adverse effects cannot be avoided, effects are remedied or mitigated.

These policies are considered to be met for the reasons provided above.

E11 Land disturbance – Regional

(4) Enable land disturbance necessary for a range of activities undertaken to provide for people and communities social, economic and cultural well-being, and their health and safety.

(5) Design and implement earthworks with recognition of existing environmental site constraints and opportunities, specific engineering requirements, and implementation of integrated water principles.

(6) Require that earthworks are designed and undertaken in a manner that ensures the stability and safety of surrounding land, buildings and structures.

(6A) Recognise and provide for the management and control of kauri dieback disease as a means of maintaining indigenous biodiversity

(7) Require any land disturbance that will likely result in the discharge of sediment laden

water to a surface water body or to coastal water to demonstrate that sediment discharge has been minimised to the extent practicable, having regard to the quality of the environment; with:

(a) any significant adverse effects avoided, and other effects avoided, remedied or mitigated, particularly in areas where there is:

(i) high recreational use;

(ii) relevant initiatives by Mana Whenua, established under regulations relating to the conservation or management of fisheries, including taiāpure, rāhui or whakatupu areas;

(iii) the collection of fish and shellfish for consumption;

(iv) maintenance dredging; or

(v) a downstream receiving environment that is sensitive to sediment accumulation;

(b) adverse effects avoided as far as practicable within areas identified as sensitive because of their ecological values, including terrestrial, freshwater and coastal ecological values; and

(c) the receiving environments ability to assimilate the discharged sediment being taken into account.

E11 Land disturbance – Regional

(8) Monitor the quality of fresh and coastal water bodies across the region and the effects of land disturbance on water quality and receiving environments.

E12 Land disturbance – District

Relevant Objective / Policy

Assessment

E12.2. Objectives

(1) Land disturbance is undertaken in a manner that protects the safety of people and avoids, remedies or mitigates adverse effects on the environment.

This objective is considered to be met for the reasons provided in E11 above.

E12.3. Policies

(1) Avoid where practicable, and otherwise, mitigate, or where appropriate, remedy adverse effects of land disturbance on areas where there are natural and physical resources that have been scheduled in the Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character.

(2) Manage the amount of land being disturbed at any one time, to:
(a) avoid, remedy or mitigate adverse construction noise, vibration, odour, dust, lighting and traffic effects;
(b) Avoid, remedy or mitigate adverse effects on accidentally discovered sensitive material; and
(c) maintain the cultural and spiritual values of Mana Whenua in terms of land and water quality, preservation of wāhi tapu, and kaimoana gathering.

(3) Enable land disturbance necessary for a range of activities undertaken to provide for people and communities social, economic and cultural well-being, and their health and safety

(4) Manage the impact on Mana Whenua cultural heritage that is discovered undertaking land disturbance by:
(a) requiring a protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin;

These policies are considered to be met for the reasons provided in E11 above.

E12 Land disturbance – District

- (b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and
 - (c) undertaking appropriate measures to avoid adverse effects, or where adverse effects cannot be avoided, effects are remedied or mitigated.
-
- (5) Design and implement earthworks with recognition of existing environmental site constraints and opportunities, specific engineering requirements, and implementation of integrated water principles.
-
- (6) Require that earthworks are designed and undertaken in a manner that ensures the stability and safety of surrounding land, buildings and structures.

E14 Air quality

Relevant Objective / Policy	Assessment
E14.2. Objectives [rcp/rp]	
(1) Air quality is maintained in those parts of Auckland that have high air quality, and air quality is improved in those parts of Auckland that have low to medium air quality.	<p>The extraction and processing of aggregate will inevitably generate some dust, however, as discussed above, Kings Quarry will not have the same potential level of dust generation as other quarries in the Auckland region due to the nature of the alluvial rock to be quarried. This is recognised in the Special Quarry Zone provisions. The provisions seek to ensure that these effects are ‘managed’ rather than avoided. The Proposal is for mineral extraction activities which have operational requirements that should be recognised and provided for.</p> <p>It is considered that these effects will be able to be appropriately managed through the Quarry Management Plan (QMP) and Dust Management Plan (DMP) which will specify methods to minimise dust emissions to air, identification of roles and responsibilities for the implementation of the QMP and procedures for receiving and responding to complaints. This is intended to be a ‘live document’, providing the opportunity to adapt to any evolving best practice procedures.</p> <p>The Project is sufficiently separated from adjacent dwellings (with the nearest dwelling being over 200m from Stage 2) which will assist in mitigating any adverse effects. Regardless of distance and prevailing wind directions, good dust management practices are needed to ensure that the potential for wind driven</p>
(2) Human health, property and the environment are protected from significant adverse effects from the discharge of contaminants to air.	
(3) Incompatible uses and development are separated to manage adverse effects on air quality from discharges of contaminants into air and avoid or mitigate reverse sensitivity effects.	
(4) The operational requirements of light and heavy industry, other location-specific industry, infrastructure, rural activities and mineral extraction activities are recognised and provided for.	

E14 Air quality

entrainment of dust is kept to a minimum. Good dust management includes enclosing dust sources as much as is practicable, establishing preventative maintenance, good housekeeping procedures and carrying out particularly dusty operations in favourable weather conditions. The areas of the site that need specific consideration are roadways (paved or unpaved), vehicle movement, material stockpiles, conveyors, crushers and material handling. These measures will be considered and incorporated as necessary into the QMP and DMP.

It is therefore considered that any adverse dust and air quality effects will not be significant and that human health, property and the environment will be appropriately protected with adverse effects being avoided, remedied or mitigated.

E14.3. Policies [rcp/rp]

(1) Manage the discharge of contaminants to air, including by having regard to the Auckland Ambient Air Quality Targets in Table E14.3.1, so that significant adverse effects on human health, including cumulative adverse effects, are avoided, and all other adverse effects are remedied or mitigated.

This policy is considered to be met for the reasons provided above.

(2) In the coastal marine area and in urban and rural zones, except for those zones and precincts subject to policies E14.3(3) to (5):

(a) avoid offensive or objectionable effects from dust and odour discharges and remedy or mitigate all other adverse effects of dust and odour discharges; or

(b) require adequate separation distance between use and development which discharges dust and odour to air and activities that are sensitive to adverse effects of dust and odour discharges, or both of the above.

This policy is not relevant as the site is zoned Special Purpose – Quarry Zone.

(3) In the Rural – Rural Production Zone, Rural – Mixed Rural Zone, Rural – Rural Coastal Zone, Future Urban Zone, Auckland Council District Plan - Hauraki Gulf Islands Rural 1-3 and Landform 1-7:

(a) recognise that rural air quality is generally a result of dust and odours, and other emissions generated by rural production activities;

(b) avoid, remedy or mitigate adverse effects of dust and odour discharges;

(c) provide for minor and localised elevation of dust and odour levels where the

This policy is not relevant as the site is zoned Special Purpose – Quarry Zone.

E14 Air quality	
<p>air discharge is from:</p> <ul style="list-style-type: none"> (i) rural production activities or rural industry; or (ii) the operation of infrastructure or location specific industry; or (iii) mineral extraction activities; or (iv) activities undertaken by the New Zealand Defence Force for training and munitions testing; or (v) for emergency services training; <p>(d) require adequate separation between use and development which discharge dust and odour and activities that are sensitive to these adverse effects.</p>	
<p>(4) Support the use and development in the Business – Light Industry Zone, Coastal – Minor Port Zone, the Port Precinct, Auckland Airport Precinct and Auckland Council District Plan - Hauraki Gulf Islands Commercial 5 Zone, by providing for medium dust and odour levels and avoiding, remedying or mitigating, the adverse effects of dust and odour.</p>	<p>This policy is not relevant as the site is zoned Special Purpose – Quarry Zone.</p>
<p>(5) Support the use and development in the Business – Heavy Industry Zone, Special Purpose – Quarry Zone and Auckland Council District Plan - Hauraki Gulf Islands Commercial 6 Zone by:</p> <ul style="list-style-type: none"> (a) providing for higher levels of dust and odour provided that any adverse effects on human health are avoided, remedied or mitigated; (b) avoiding the establishment of activities sensitive to air discharges in these zones; and (c) discouraging the establishment of activities sensitive to air discharges in areas adjacent to these zones. 	<p>This policy is considered to be met for the reasons provided above.</p>
<p>(6) Avoid the discharge of contaminants to air from industrial activities in rural zones and the coastal marine area except where the activity is:</p> <ul style="list-style-type: none"> (a) location specific, such as mineral extraction activities and mineral processing, wastewater treatment facilities, marine and port activities, (b) undertaken by the New Zealand Defence Force for training and munitions testing, or for emergency services training; 	<p>The Proposal is for mineral extraction activities. Notwithstanding this activity is provided for in this policy, a QMP and DMP will be in place to ensure that discharge of contaminants to air in the rural environment are minimised.</p>

E14 Air quality	
(c) infrastructure requiring large separation distances that cannot be provided for within urban areas; or (d) a rural industry.	
(7) Require discharges of contaminants to air from outdoor burning (except when associated with test and training exercises by emergency response services), to be: (a) avoided in urban and industrial areas and the coastal marine area; or (b) minimised in rural areas; or (c) minimised where it is for community or public event purposes or for cooking or heating.	This policy is not relevant to the Proposal.
(8) Avoid, remedy or mitigate the adverse effects on air quality from discharges of contaminants into air by: (a) using the best practicable option for emission control and management practices that are appropriate to the scale of the discharge and potential adverse effects; and (b) adopting a precautionary approach, where there is uncertainty and a risk of significant adverse effects or irreversible harm to the environment from air discharges.	This policy is considered to be met for the reasons provided above.
(9) Avoid, remedy or mitigate the adverse effects on air quality beyond the boundary of the premises where the discharge of contaminants to air is occurring, in relation to: (a) noxious or dangerous effects on human health, property or the environment from hazardous air pollutants; or (b) overspray effects on human health, property or the environment.	This policy is considered to be met for the reasons provided above.
(10) Require large scale combustion sources that discharge contaminants to air to avoid, remedy or mitigate any adverse effects on aircraft safety.	This policy is not relevant to the Proposal.
(11) Enable the use of air quality offsets in achieving compliance with relevant standards and other provisions in the plan.	No air quality offset is proposed to achieve compliance. The activity is specifically provided for as a controlled activity in E14 of the AUP (OP) as 167 tonnes per hour of extraction expected at a maximum capacity on a site that is located in a low air quality – dust and odour area (Quarry) is proposed.

E14 Air quality	
<p>(12) Before granting a resource consent for the discharge of greenhouse gases to air from heat devices on a site, council will:</p> <p>(a) consider the total discharges of greenhouse gases from all heat devices on the site that the application relates to; and</p> <p>(b) recognise that, cumulatively, all discharges of greenhouse gases resulting from the production of industrial process heat, regardless of volume, contribute to climate change, and any reduction in greenhouse gas emissions contributes to mitigating climate change.</p>	This policy is not relevant to the Proposal.
<p>(13) When considering an emissions plan as part of an application for a resource consent for a restricted discretionary activity relating to discharges to air of greenhouse gases from heat devices, council will consider:</p> <p>(a) the timing and content of updates of the emissions plan to be made by the holder of the consent; and</p> <p>(b) how those updates will reflect changes in technology and best practices.</p>	This policy is not relevant to the Proposal.
E15 Vegetation management and biodiversity	
Relevant Objective / Policy	Assessment
E15.2. Objectives [rcp/rp/dp]	
<p>(1) Ecosystem services and indigenous biological diversity values, particularly in sensitive environments, and areas of contiguous indigenous vegetation cover, are maintained or enhanced while providing for appropriate subdivision, use and development.</p>	<p>Approximately 90.64ha (including the pit area) is subject to pest animal control methods. In addition, approximately 3.52ha of 'edge effects planting' is proposed at 306 Pebble Brook Road alongside existing SEA vegetation and 2.88ha of 'buffer planting' is proposed along the edge of the quarry footprint. It is not practicable to avoid adverse effects on indigenous biodiversity values of the SEA removal because the majority of the quarry site is vegetated.</p> <p>The effects management hierarchy has been applied to the effects arising from the vegetation and stream removal, and the applicant will achieve biodiversity 'net gain' through the offsetting and compensation proposed. In summary, it is proposed to construct a predator-proof fence encompassing 60ha of land, undertake 61.8ha of revegetation (29.18ha within the predator-proof fence), pest</p>
<p>(2) Indigenous biodiversity is restored and enhanced in areas where ecological values are degraded, or where development is occurring</p>	

E15 Vegetation management and biodiversity

	<p>browser control of the remaining existing vegetation outside the predator-proof fence (57.52ha), provision of enrichment planting to all existing vegetation (88.28ha) both within and outside the fence, weed control, 2,893 metres of stream restoration through riparian planting, and 6,400 m² of wetland restoration from exotic, unbuffered wetlands to indigenous wetlands with native buffer planting at two offset and compensation sites outlined in section 6.2.6 of the AEE. It is also proposed to remove the weir to allow for the restoration in connectivity to 3,4km linear metres of stream extent in the upper Waitoki Stream.</p> <p>Overall, as a whole, when objectives 1 and 2 are read together, the Project is considered consistent to these objectives given the extensive offsetting and compensation package proposed which will ultimately lead to a net biodiversity outcome.</p>
E15.3. Policies [rcp/rp/dp]	
(1) Protect areas of contiguous indigenous vegetation cover and vegetation in sensitive environments including the coastal environment, riparian margins, wetlands, and areas prone to natural hazards	<p>These policies are considered to be met for the reasons provided above. In particular, a comprehensive offsetting and compensation package is proposed to address adverse effects of the removal of indigenous biodiversity through the vegetation and stream removals. In summary, it is proposed to construct a predator-proof fence encompassing 60ha of land, undertake 61.8ha of revegetation (29.18ha within the predator-proof fence), pest browser control of the remaining existing vegetation outside the predator-proof fence (57.52ha), provision of enrichment planting to all existing vegetation (88.28ha) both within and outside the fence, weed control, 2,893 metres of stream restoration through riparian planting, and 6,400 m² of wetland restoration from exotic, unbuffered wetlands to indigenous wetlands with native buffer planting at two offset and compensation sites outlined in section 6.2.6 of the AEE. It is also proposed to remove the weir to allow for the restoration in connectivity to 3,4km linear metres of stream extent in the upper Waitoki Stream.</p> <p>Legal protection of planted areas is also provided for in the conditions of consent. All planted areas and existing planted areas to be enhanced will be subject to a Kauri Dieback Management Plan which is provided for as conditions of consent.</p>
(2) Manage the effects of activities to avoid significant adverse effects on biodiversity values as far as practicable, minimise significant adverse effects where avoidance is not practicable, and avoid, remedy or mitigate any other adverse effects on indigenous biological diversity and ecosystem services, including soil conservation, water quality and quantity management, and the mitigation of natural hazards.	
(3) Encourage the offsetting of any significant residual adverse effects on indigenous vegetation and biodiversity values that cannot be avoided, remedied or mitigated, through protection, restoration and enhancement measures, having regard to Policy E15.3(4) below and Appendix 8 Biodiversity offsetting.	
(4) Protect, restore, and enhance biodiversity when undertaking new use and development through any of the following: (a) using transferable rural site subdivision to protect areas that meet one or more of the factors referred to in B7.2.2(1) and in Schedule 3 Significant Ecological	

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<p>Areas -Terrestrial Schedule or shown on the Kawau Island Rural Subdivision SEA Control.</p> <p>(b) requiring legal protection, ecological restoration and active management techniques in areas set aside for the purposes of mitigating or offsetting adverse effects on indigenous biodiversity; or</p> <p>(c) linking biodiversity outcomes to other aspects of the development such as the provision of infrastructure and open space</p>	<p>Overall, it is anticipated that a biodiversity 'net gain' will occur following the completion of all offset and compensation actions.</p>
<p>(5) Enable activities which enhance the ecological integrity and functioning of areas of vegetation, including for biosecurity, safety and pest management and to control kauri dieback.</p>	
<p>(6) Enable vegetation management to provide for the operation and routine maintenance needs of activities.</p>	
<p>(7) Manage any adverse effects from the use, maintenance, upgrading and development of infrastructure in accordance with the policies in E15.3, recognising that it is not always practicable to locate or design infrastructure to avoid areas with indigenous biodiversity values.</p>	
<p>(8) Recognise and provide for the management and control of kauri dieback as a means of maintaining indigenous biodiversity.</p>	
<p>(9) Avoid activities in the coastal environment where they will result in any of the following:</p> <p>(a) non-transitory or more than minor adverse effects on:</p> <p>(i) threatened or at risk indigenous species (including Maui's Dolphin and Bryde's Whale);</p> <p>(ii) the habitats of indigenous species that are at the limit of their natural range or which are naturally rare;</p> <p>(iii) threatened or rare indigenous ecosystems and vegetation types, including naturally rare ecosystems and vegetation types;</p> <p>(iv) areas containing nationally significant examples of indigenous</p>	<p>These policies are not relevant to the Proposal as the site is not located in the coastal environment.</p>

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ecosystems or indigenous community types; or
 (v) areas set aside for full or partial protection of indigenous biodiversity under other legislation, including the West Coast North Island Marine Mammal Sanctuary
 (b) any regular or sustained disturbance of migratory bird roosting, nesting and feeding areas that is likely to noticeably reduce the level of use of an area for these purposes;
 (c) the deposition of material at levels which would adversely affect the natural ecological functioning of the area; or
 (d) fragmentation of the values of the area to the extent that its physical integrity is lost.

(10) Avoid (while giving effect to Policy E15(9) above) activities in the coastal environment which result in significant adverse effects, and avoid, remedy or mitigate other adverse effects of activities, on:
 (a) areas of predominantly indigenous vegetation;
 (b) habitats that are important during the vulnerable life stages of indigenous species;
 (c) indigenous ecosystems and habitats that are found only in the coastal environment and are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh;
 (d) habitats of indigenous species that are important for recreational, commercial, traditional or cultural purposes including fish spawning, pupping and nursery areas;
 (e) habitats, including areas and routes, important to migratory species;
 (f) ecological corridors, and areas important for linking or maintaining biological values; or
 (g) water quality such that the natural ecological functioning of the area is adversely affected.

E27 Transport	
Relevant Objective / Policy	Assessment
E27.2. Objectives	
(1) Land use and all modes of transport are integrated in a manner that enables: (a) the benefits of an integrated transport network to be realised; and (b) the adverse effects of traffic generation on the transport network to be managed.	A new site access from Pebble Brook Road was consented (and recently formed) as part of Stage 1 as well as the widening of Pebble Brook Road and various improvements to the Pebble Brook Road / Waitoki Road intersection, including: <ul style="list-style-type: none">• Change from Give-Way to Stop controlled intersection;• Shifting of the posted speed limit signage 150m to the west;• Installation of high friction surfacing for 100m west of the intersection; and• Changes to paint markings and installation of truck turning signage. These access arrangements are sufficient to service the Project (notwithstanding the increase in truck volumes by up to 3 trucks per hour) and will be in place prior to the commencement of the proposed quarry activities.
(2) An integrated transport network including public transport, walking, cycling, private vehicles and freight, is provided for.	
E27.3. Policies	
(1) Require subdivision, use and development which: (a) generate trips resulting in potentially more than minor adverse effects on the safe, efficient and effective operation of the transport network; (b) are proposed outside of the following zones: (i) the Business – City Centre Zone, Business – Metropolitan Centre Zone, Business – Town Centre Zone; (ii) Residential – Terrace Housing and Apartment Buildings Zone; (iii) the Centre Fringe Office Control as shown on the planning maps; or (c) do not already require an integrated transport assessment or have been approved based on an integrated transport assessment to manage adverse effects on and integrate with the transport network by measures such as travel planning, providing alternatives to private vehicle trips, staging development or undertaking improvements to the local transport network.	These relevant policies are considered to be met as it relates to trip generation, parking and access for the reasons provided above.

E27 Transport

(2) Require major proposals for discretionary consent to prepare an integrated transport assessment including provision for pedestrians, cyclists, public transport users, freight and motorists.

Parking

(3) Manage the number, location and type of parking and loading spaces, including bicycle parking and associated end-of-trip facilities to support all of the following:

- (a) the safe, efficient and effective operation of the transport network;
- (b) the use of more sustainable transport options including public transport, cycling and walking;
- (c) the functional and operational requirements of activities;
- (d) the efficient use of land;
- (e) the recognition of different activities having different trip characteristics; and
- (f) the efficient use of on-street parking

Access

(20) Require vehicle crossings and associated access to be designed and located to provide for safe, effective and efficient movement to and from sites and minimise potential conflicts between vehicles, pedestrians, and cyclists on the adjacent road network.

E28 Mineral extraction from land

Relevant Objective / Policy

Assessment

E28.2. Objective [rp/dp]

E28 Mineral extraction from land	
(1) Mineral extraction from the land and its delivery is efficient and meets Auckland's needs while significant adverse effects are avoided, remedied or mitigated.	The Project, being a regionally significant quarry, will inevitably generate some adverse effects however these are not considered significant subject to the implementation of best practice industry procedures, guidelines and management plans (which are the subject of consent conditions).
(2) The removal of vegetation, associated with mineral extraction activities within the significant ecological areas in the Special Purpose – Quarry Zone at Brookby Quarry, which is shown in Figure E15.10.1 Brookby Quarry extent, and Drury Quarry (excluding SEA_T_5349), which is shown in Figure E15.10.2 Drury Quarry extent, which has significant effects is avoided, remedied, mitigated or offset to the extent described in Policy D9.3.(8A).	This objective is not relevant as this specifically relates to Brookby and Drury Quarries.
E28.3. Policies [rp/dp]	
(1) Avoid where practicable undertaking new mineral extraction activities in areas where there are natural and physical resources that have been scheduled in the Plan in relation to natural heritage, Mana Whenua, natural resources, coastal, historic heritage and special character.	The site is subject to a scheduled natural resource (being the SEA overlay) and it is not practicable to entirely avoid adverse effects on the SEA because it covers almost all of the quarry site.
(2) Where it is not practicable to locate mineral extraction activities outside the areas identified in Policy E28.3(1), consideration will be given to all of the following: (a) the benefits likely to be derived from the mineral extraction activities; (b) any reduced transport effects from having a mineral extraction site closer to the area of demand; (c) the extent to which significant adverse effects can be avoided; and (d) the extent to which adverse effects can be remedied, mitigated or, where not mitigated, can be offset.	<p>Given that it is not practicable to avoid the SEA on the site, consideration is given to the matters listed in Policies E28.3(2)(a)-(d) as follows:</p> <p>The Proposal is considered to have a number of benefits as well as reduced transport effects, as follows:</p> <ul style="list-style-type: none"> Based on current production figures, it is clear that the Auckland region does not have enough aggregate production capacity to support itself. As Auckland's economy grows, demand for aggregate material will increase into the future from between 12.8m to 14m tonnes currently, to between 16m and 30m tonnes annually by 2048, depending on the growth scenario. Auckland's supply deficit will continue to worsen if the region's total production remains at the 2019 level (7.39m tonnes per year). The widening gap between supply and demand is a significant issue for the Auckland region. Reducing Auckland's substantial supply deficit by increasing the amount of local aggregate available. As such, Auckland would become less reliant on sourcing aggregate from the Waikato and other parts of New Zealand, at a

E28 Mineral extraction from land

	<p>lower cost. This would also help to reduce pressure on Waikato's quarries as they will also face future increases in demand locally.</p> <ul style="list-style-type: none"> • In pure cost terms, the extension of Kings Quarry is expected to generate: <ul style="list-style-type: none"> ○ Total value added to the economy of approximately \$214.2M (undiscounted), with approximately \$103.3m of this being direct impacts. ○ Total construction aggregate transport cost savings of approximately \$382M (mid-point) for Auckland's construction sector. ○ Total emissions cost savings of approximately \$21.4m. ○ In addition to the above economic benefits, the quarry is also projected to have a significant impact on employment. The lifecycle employment impact is projected to sustain around 21.5 Full Time Equivalents ('FTEs') annually, and 968 FTEs across the 45 year lifecycle. ○ A reduction of 12,551 tonnes of CO2 equivalent greenhouse gas emissions could be achieved annually through transport-related savings. To provide context, this equates to ~0.35% of New Zealand's total heavy vehicle CO2 equivalent GHG emissions, using Ministry of Transport data from 2019 as a base year. For a single project, this is a significant benefit. • It is considered that significant adverse effects can be avoided and overall, be considered minor with the exception of effects on ecological values where effects are considered to be more than minor. This is discussed in further detail in section 9.0 of the AEE. • Residual adverse effects associated with ecological values are proposed to be offset and compensated to ensure biodiversity 'net gain' will be achieved. This is discussed in further detail in section 9.2 of the AEE and the accompanying residual effects analysis reports included as Appendix 18 and 21.
(3) Provide for existing and new mineral extraction activities of a significant size and scale by their inclusion in and management by a Special Purpose – Quarry Zone	The site is zoned Special Purpose – Quarry and quarrying activities on the site have been undertaken since the 1930s.
(4) Avoid, remedy or mitigate as far as practicable significant adverse effects associated with mineral extraction activities.	Refer to assessment above.
(5) Require proposals for new mineral extraction activities in rural areas to provide	The following is provided as part of the application:

E28 Mineral extraction from land

adequate information on the establishment and operation of the activity and demonstrate:

- (a) the size and scale of extraction activities and the expected length of operation of the extraction site;
- (b) the design and layout of the site, the access roads and supporting facilities;
- (c) that adequate measures will be used to:
 - (i) manage noise, vibration, dust and illumination to maintain amenity values of the surrounding land uses, particularly at night-time;
 - (ii) manage adverse effects of traffic generation and maintain safety to all road users, particularly measures to manage heavy vehicles entering or exiting the site;
 - (iii) avoid, remedy or mitigate adverse effects on soil and water quality, including impacts on watercourses within the extraction site and the effects of discharges from the site into the neighbouring environment;
 - (iv) maintain land stability;
 - (v) mitigate significant adverse effects on visual and landscape values; and
 - (vi) protect the values of identified heritage or archaeological sites, buildings, places or areas, along with Mana Whenua values.
- (d) options anticipated for the rehabilitation of the site, either by a staged process or at the end of the economic life of the quarry, having regard to the expected life of the mineral extraction site

- Staging plans to outline the staging of the quarry extraction and vegetation removal;
- Quarry Management Plan – this has been developed to manage effects of the quarry activities. The QMP addresses quarry operations including erosion and sediment control;
- Dust Management Plan to manage dust emissions;
- Noise Management Plan is offered as a condition of consent;
- Erosion and Sediment Control Plan and Adaptive Management Plan to manage sediment runoff;
- Chemical Treatment Management Plan to manage water quality of receiving environment;
- Monitoring and Contingency Plan to monitor water quality and stream flow; and
- Remediation planting plans.

(6) Require a quarry management plan for mineral extraction activities to be prepared to address operational matters associated with mineral extraction, including management of adverse effects and actions to avoid, remedy, mitigate or offset these effects.

A Quarry Management Plan (refer to **Appendix 27**) is provided as part of the application.

(7) Ensure buildings and structures are of an appropriate size and scale and located appropriately in relation to site boundaries.

No buildings and structures are proposed as part of this Proposal, these have already been assessed, consented and built as part of Stage 1 consent.

(8) Enable the use of the mineral extraction site for activities compatible with mineral extraction activities and provide for a range of appropriate activities within or adjoining the mineral extraction sites where these rely on minerals as a raw material.

Mineral extraction activities have been carried out on the site since the 1930s and are considered to be compatible with rural uses, noting the surrounding properties are zoned Rural Production.

E28 Mineral extraction from land	
(9) Enable quarries ancillary to farming and forestry activities to be established in rural areas.	This is not considered relevant to the Proposal.
(10) Require quarry operators to internalise the adverse effects associated with new mineral extraction activities as far as practicable while recognising the need to allow for the efficient ongoing extraction of mineral resources.	The quarry operations will be managed carefully to ensure that adverse effects associated with the Proposal are largely internalised within the site and the implementation of the Quarry Management Plan will ensure that good site practices are implemented to avoid where practicable or otherwise remedy and mitigate potential adverse effects on the environment
H19 Rural zones – Rural Production Zone	
Relevant Objective / Policy	Assessment
H19.3.2. Objectives	
(1) A range of rural production, rural industries, and rural commercial activities take place in the zone.	The Project involves utilising a consented accessway with no further changes to the activities within the Rural Production zone. The activities proposed are not considered to give rise to any reverse sensitivity issues for rural land uses, and it is considered that mineral extraction and rural production are compatible as adjacent land uses
(2) The productive capability of the land is maintained and protected from inappropriate subdivision, use and development.	The soils of the site are classified as Land Use Capability ('LUC') Classes 4-7 and therefore do not qualify as 'elite' (LUC Class 1) or 'prime' (LUC Class 2 or 3) and are not considered to be productive.
H19.3.3. Policies	
(1) Provide for a range of existing and new rural production, rural industry and rural commercial activities and recognise their role in determining the zone's rural character and amenity values.	This policy is considered to be met for the reasons provided above.

H28. Special Purpose – Quarry Zone

H28. Special Purpose – Quarry Zone	
Relevant Objective / Policy	Comment
H28.2. Objectives	
(1) Mineral extraction activities and appropriate compatible activities are carried out efficiently at significant mineral extraction sites.	The Proposal involves mineral extraction activities which are able to be undertaken efficiently at this site. The site is considered to be a significant mineral extraction site given its proximity to existing urban and growth areas
(2) The significant adverse effects associated with mineral extraction are avoided, remedied or mitigated.	<p>As discussed in section 9 of the AEE and in the accompanying technical reports, the Project, being a regionally significant quarry, will inevitably generate some adverse effects, however, these are not considered significant subject to the implementation of best practice industry procedures, guidelines and management plans.</p> <p>With respect to effects on ecological values, the effects management hierarchy has been applied to ensure that significant adverse effects are avoided, remedied and mitigated, and any residual effects are offset and compensated. Given that the SEA overlay applies to the majority of the site, it is not possible to avoid adverse effects entirely, however the more valuable areas of vegetation have been avoided and the A-Pit has been relocated to reduce further fragmentation of the SEA. The adverse effects that are not able to be avoided will be mitigated through the proposed ecological plans, replanting and pest management within the Kings Quarry landholdings. It is also proposed to undertake remediation planting from Year 2 of the quarry life.</p> <p>To address any residual adverse effects, the applicant proposes a comprehensive offsetting and compensation package that can ensure biodiversity ‘net gain’ is achieved. In respect of off-setting, we refer to the <i>East-West Link</i> Supreme Court decision which held that offsets can be taken into account to address “avoid” policies.</p> <p>While the objectives for this zone do not specifically contemplate offsetting, offsetting is specifically addressed through the objectives and policies for the SEA overlay, waterbodies, and vegetation management and these should be read in conjunction. In the context of the other management regimes, while might be inconsistent with this objective, the zoning of the Site, and the substantial</p>

H28. Special Purpose – Quarry Zone

	offsetting and compensation regime prepared by the applicant, this Project is not considered to be contrary to this objective.
(3) The rehabilitation of quarries is assisted by cleanfills and managed fills.	It is proposed to progressively rehabilitate the quarry when areas are no longer required for quarrying activities through remediation planting. Cleanfills and managed fills are not proposed as part of the rehabilitation measure.
H28.3. Policies	
(1) Apply the Special Purpose – Quarry Zone to significant mineral resources and extraction sites that provide for mineral extraction.	The Special Purpose – Quarry Zone has been applied to Kings Quarry indicating that it contains significant mineral resources and extraction sites.
(2) Enable appropriate compatible land uses within or adjoining the zone, including mineral recycling activities and the manufacture of products using raw materials from mineral extraction activities.	The related land use proposed is the continued use of the accessway to the site from Pebble Brook Road, which is located on Rural Production zoned land. This is considered to be an appropriate compatible land use.
(3) Avoid where practicable, or otherwise remedy and mitigate significant adverse effects on areas where there are natural and physical resources that have been scheduled in the Plan in relation to natural heritage, Mana Whenua, natural resources, coastal, historic heritage and special character.	It is not practicable to entirely avoid adverse effects on scheduled natural and physical resources – specifically the SEA overlay – as it covers the almost all the site. Adverse effects will be avoided, mitigated or remedied, and any residual adverse effects are offset and compensated for as discussed above.
(4) Manage noise, vibration, dust and illumination to protect existing adjacent activities sensitive to these effects from unreasonable levels of noise, vibration, dust and illumination.	<p>In terms of noise and vibration, subject to the proposed conditions of consent, Hegley Acoustics conclude that the proposed quarry activities can comply at all times at all sensitive receivers. It is anticipated that blasting effects associated with the quarrying will be managed through the size and method of blasting. Given the nearest sensitive receiver over 200m from the proposed blasting, blasting management can reasonably be expected to control the effects to be well within the AUP limits. With respect to road noise associated with the increase in truck movements in and out of the site, it is expected that these would comply with both the daytime and night time limits. Having regard to the above, it is considered that noise and vibration will be appropriately managed.</p> <p>A Quarry Management Plan and Dust Management Plan will manage effects of dust on adjacent activities. Good dust management includes enclosing dust sources as much as is practicable, establishing preventative maintenance, good housekeeping procedures and carrying out particularly dusty operations in favourable weather conditions. The areas of the site that need specific consideration are roadways (paved or unpaved), vehicle movement, material</p>

H28. Special Purpose – Quarry Zone

	<p>stockpiles, conveyors, crushers and material handling. These measures will be considered and incorporated as necessary into the QMP and DMP. It is therefore considered that any adverse dust and air quality effects will be appropriately managed.</p> <p>Any lighting will be designed in accordance with the standards of E24 (noting however that the hours of operation will be predominantly daylight hours).</p>
(5) Require the rehabilitation of sites following mineral extraction activities to enable the land to be used for other purposes.	<p>The site will be progressively rehabilitated when areas are no longer required for quarrying activities, and revegetated. A remediation plan has been prepared and attached as Appendix 20. Remediation planting will comprise of Manuka/Kanuka dominant mix for the rock bench and Podocarp/Broadleaf mix for the overburden fill areas. As rock faces cannot be planted, climbing plants are proposed to the base of the rock cuts to climb up the rock faces.</p>
(6) Avoid, remedy or mitigate adverse effects of traffic generation and maintain safety for all road users, and particularly measures to manage heavy vehicles entering or exiting the site and on quarry transport routes.	<p>The consented Stage 1 access upgrades to the site and local transport network will appropriately service the Project without the need for any further upgrades in the local road network.</p>
(7) Require quarry operators to internalise the adverse effects associated with new or enlarged mineral extraction activities as far as practicable while recognising the need to allow for the efficient ongoing extraction of mineral resources	<p>Adverse effects will be internalised as much as possible however some effects, such as landscape and visual effects, will not be able to be internalised and the efficient ongoing extraction of mineral resources should be recognised. The elevated nature of the quarry activities in relation to the closest dwellings means there is no potential for screening and landscaping to completely obscure the quarry. However, proposed remediation planting, particularly in the A-Pit, would screen the activities over time. Overall, having regard to the context in which quarry activities are contemplated within the Special Purpose – Quarry Zone, and visual effects are temporary in nature (for the first 15 years) and experienced by a relatively small audience, it is considered that landscape and visual effects will be appropriately mitigated to be minor.</p> <p>When considering the purpose of this policy is not avoidance but to internalise the adverse effects as far as practicable and for the reasons provided above, it is considered that the Project is not contrary to this policy.</p>
(8) Enable cleanfills and managed fills where they can assist the rehabilitation of quarries.	<p>It is proposed to rehabilitate the quarry through remediation planting. Cleanfills and managed fills are not proposed as part of the rehabilitation measure.</p>

