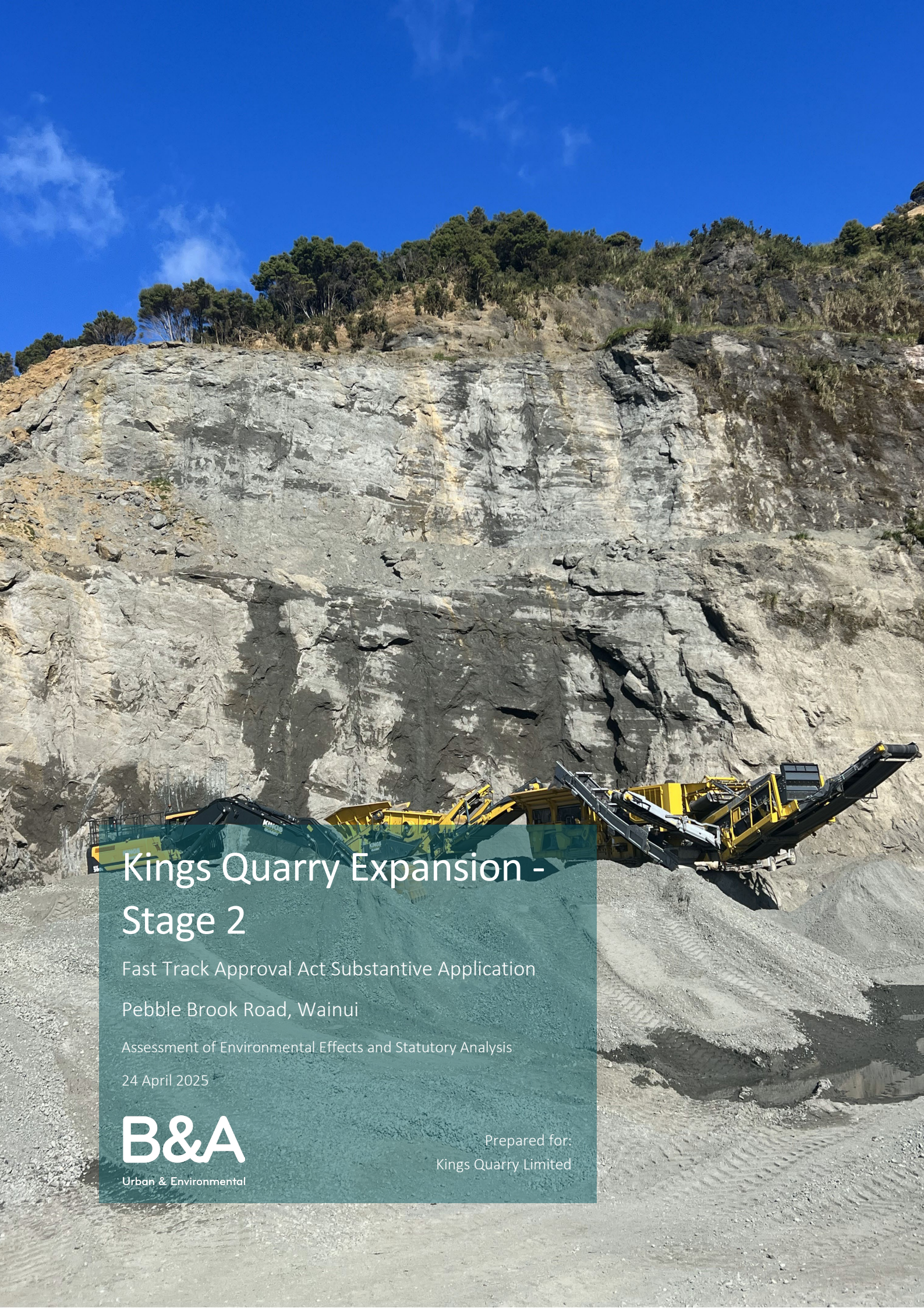

Kings Quarry Expansion - Stage 2

Fast Track Approval Act Substantive Application

Pebble Brook Road, Wainui

Assessment of Environmental Effects and Statutory Analysis

24 April 2025

B&A
Urban & Environmental

Prepared for:
Kings Quarry Limited

B&A Reference:

WRK17073

Status:

Final Revision 1

Date:

24 April 2025

Prepared by:

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Intermediate Planner, Barker & Associates Limited

Reviewed by:

Nick Roberts

Director, Barker & Associates Limited

Contents

Appendices

PART A – INTRODUCTION AND PROPOSAL

1.0 Applicant and Property Details

To:	Environmental Protection Authority
Site Address:	Pebble Brook Road, Wainui
Applicant Name:	Kings Quarry Limited
Address for Service:	Barker & Associates Ltd PO Box 1986 Shortland Street Auckland 1140 Attention: Pamela Santos
Legal Description:	Various (refer to Records of Title as **Appendix 1**)
Site Area:	167.1089 hectares
Site Owner:	Pebblebrook Properties Limited
Unitary Plan:	Auckland Unitary Plan (Operative in Part) ('AUP(OP)')
AUP(OP) Zoning:	Special Purpose – Quarry Zone Rural – Rural Production Zone
AUP(OP) Precinct:	None applicable
AUP(OP) Overlays & Controls:	Natural Resources: Significant Ecological Area – SEA-T_6454 Natural Resources: High Use Stream Management Area; Natural Heritage: Outstanding Natural Landscapes Overlay, Area 9 Kaukapakapa; Infrastructure: Quarry Buffer Area Overlay
Designations:	None applicable
Additional Limitations:	Rivers and permanent streams; Overland Flow Paths; Flood Prone Areas; and Flood Plains
Locality Diagram:	Refer to **Figure 1**

Brief Description of Proposal:	To commence Stage 2 of the Kings Quarry Expansion to extract approximately 500,000 tonnes of aggregate per year for a period of 45 years.
Summary of Reasons for Consent:	AUP(OP): Resource consent for reclamation of waterbodies within a SEA, groundwater diversion by excavation, district and regional land disturbance, mineral extraction activities at a rate of 167 tonnes per hour, removal of contiguous vegetation outside the RUB boundary, SEA vegetation removal, land disturbance and mineral extraction in a Quarry zone. NES FW: Resource consent for reclamation of streams across the site.
Wildlife Approval Application:	Capture and relocation of native lizards.

2.0 Executive Summary

This report is submitted in support of the resource consent application and wildlife approval application to the Environmental Protection Authority ("EPA") by Kings Quarry Limited (the "applicant" or "KQL") to expand quarry operations at Kings Quarry which is located at Pebble Brook Road, Wainui ("the Site" or "Project Area").

The demand for aggregate in the Auckland region is forecast to grow in the future based on residential growth driving demand for new housing and infrastructure. 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 summary, the 'Kings Quarry Expansion – Stage 2' involves the expansion of quarry activities at Kings Quarry, to enable for approximately 500,000 tonnes/per year of aggregate extraction in the form of 'Albany Conglomerate' for a period of up to 45 years ("the Project" or "Proposal"). To facilitate the Project, it is proposed undertake vegetation removal, earthworks and land disturbance, stream reclamation, diversion/dewatering of groundwater and discharges to air. A comprehensive offsetting and compensation package is proposed to address adverse effects of the removal of indigenous biodiversity through the vegetation and stream removals.

This report has been prepared in accordance with the requirements of the Fast-track Approvals Act 2024 ("FTAA" or "the Act"). The FTAA is intended to facilitate the delivery of infrastructure and development projects with significant regional or national benefits. The legislation establishes an Expert Consenting Panel to determine applications for approvals ordinarily sought under a number of different statutes. The Panel replaces the role of local authorities under those statutes. Two categories of projects can use the FTAA and be considered by a panel: Listed Projects and Referred Projects. The Proposal is a Listed Project in Schedule 2 of the FTAA. The approvals relevant to Kings Quarry Expansion – Stage 2 are resource consents ordinarily sought under the Resource Management Act 1991 ("RMA"), and a wildlife approval ordinarily sought under the Wildlife Act 1953 ("WA").

The Proposal requires resource consent under the Auckland Unitary Plan – Operative in Part ("AUP(OP)") and the National Environmental Standards for Freshwater 2020 ("NES-F"). The application and Assessment of Environmental Effects ("AEE") have been prepared in accordance with Sections 43 and 44, Clauses 5-8 of Schedule 5, and Clause 2 of Schedule 7 of the Act, and provides a description of the Proposal together with an assessment of actual and potential effects on the environment.

The actual and potential adverse effects on the environment are assessed in detail throughout this report, together with a comprehensive suite of technical reporting and analysis. Having assessed the effects against the relevant statutory framework, it is considered that the adverse effects overall, with the exception of effects on ecological values, will be appropriately avoided, remedied, or mitigated to be no more than minor. Adverse effects on ecological values (both terrestrial and freshwater) cannot be avoided, remedied or mitigated, given almost the entire Site is subject to the Significant Ecological Area ("SEA") Overlay, such that effects are considered to be more than

minor. However, where residual adverse effects on ecological values cannot be avoided, remedied or mitigated, biodiversity offsetting and compensation is provided to ensure that biodiversity 'net gain[1]' can be achieved. The Proposal is considered to be consistent with the treaty settlements and iwi planning documents relevant to the Site, and the applicant has undertaken, and continues to undertake, engagement with iwi. The Proposal is considered to be consistent, and will give effect to, the relevant objectives and policies under the AUP(OP), National Policy Statement on Urban Development ("NPS-UD"), National Policy Statement on Freshwater Management 2020 ("NPS-FM"), and the National Policy Statement on Indigenous Biodiversity ("NPS-IB"). We have concluded that the Proposal, as a whole and on balance, will generally be consistent with (and for the avoidance of doubt, not contrary to) the relevant objectives and policies.

It is considered that the Proposal meets the purpose of the FTAA as it will deliver development with significant regional benefits. The Project will increase the supply of aggregate to facilitate construction activities including construction of infrastructure throughout the Auckland region. The proposed Kings Quarry aggregate offers an opportunity to avoid the adverse effects of a regional shortfall in aggregate, by substituting imported rock for locally quarried aggregate. This will support the regional market, place downward pressure on aggregate, and reduce transport load.

In pure cost terms, the expansion of Kings Quarry is expected to generate:

- Total value added to the economy of approximately $214.2 million (undiscounted), with approximately $103.3 million of this being direct impacts;
- Total construction aggregate transport cost savings of approximately $382 million (mid-point) for Auckland's construction sector; and
- Total emissions cost savings of approximately $21.4 million.

In addition to these economic benefits, the Proposal is also projected to have a significant beneficial 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. We note that this is related to direct employment focused on the mining and quarry industry. Further employment is projected to be sustained across industries such as professional services, transport and manufacturing.

Finally, the Stage 2 expansion of Kings Quarry will increase supply of local aggregate to service the Auckland region. This represents a saving in bulk transport that will have a positive immediate benefit in reducing New Zealand's transport related greenhouse gas emissions. The greenhouse gas emissions report prepared by Air Matters identifies that a reduction of 12,551 tonnes of CO_2 equivalent greenhouse gas emissions could be achieved annually. To provide context, this equates to ~0.35% of New Zealand's total heavy vehicle CO_2 equivalent GHG emissions, using Ministry of Transport data from 2019 as a base year. For a single project, this is a significant benefit.

[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.

3.0 Introduction & Background

This substantive application and AEE is submitted in support of KQL's proposal for the Stage 2 expansion of existing aggregate quarry activities, as described in the application material, at Pebble Brook Road, Wainui. "Kings Quarry Expansion – Stages 2 and 3" is a listed project under Schedule 2 of the FTAA. For the avoidance of doubt, this substantive application only relates to the Stage 2 expansion project. This application is made in accordance with the FTAA instead of the RMA and WA. This substantive application and AEE is provided in accordance with the requirements of sections 42 and 43 of the FTAA, the applicable schedules, and the relevant provisions of the RMA. An FTAA checklist, as provided by the Environmental Protection Authority, is provided within Appendix 2.

In accordance with Section 46 of the Act, the information provided in this application complies with Section 42, Section 43 and Section 44, relates solely to a listed project, and does not seek approval for an ineligible activity (refer Appendix 3).

As per Section 44 of the Act, the information provided in this application is sufficiently detailed to correspond to the scale and significance of the matters that will be assessed in considering whether to grant the approvals sought, including any adverse effects of the activities to which the approvals relate. This takes into account any proposal by the applicant to manage the adverse effects of an activity through conditions.

3.1 Introduction to the Applicant

The applicant and authorised person under Section 42 of the FTAA for this resource consent application is KQL. There is no other authorised person in relation to this application. KQL was formed in 2022 to be the registered company responsible for the operation of Kings Quarry. It sits under the Semenoff Group who own and operate a variety of industrial and commercial suppliers across New Zealand, including Kamo Scoria, Tomarata Sand, and Bulk Transport, providing for end-to-end product purchase and delivery. The operation will fall under Kings Quarry Limited as its own entity. It is noted that KQL is an Amotai registered company, that supports supplier diversity in being a Māori owned company.

The properties subject to this application are owned by Pebblebrook Properties Limited, with the exception of 306 Pebble Brook Road which is owned by Tomarata Sand Limited KQL, Tomorata Sand Limited and Pebblebrook Properties Limited are related companies with the same directors. KQL has a 100-year lease to use the land for quarrying. It is noted that only pest animal control methods will be undertaken of the existing vegetation at 306 Pebble Brook Road as part of this Proposal.

3.2 Previous Kings Quarry Operations

Kings Quarry was previously owned by the Kings family and operated between the mid-1930s through to the mid-1990s, when it was closed due to its distant proximity to the wider supplier market, and lack of transport infrastructure within the region. Aggregate in the form of 'Albany Conglomerate' was quarried on a small scale at two locations (refer to Figure 1 below) within the Site.

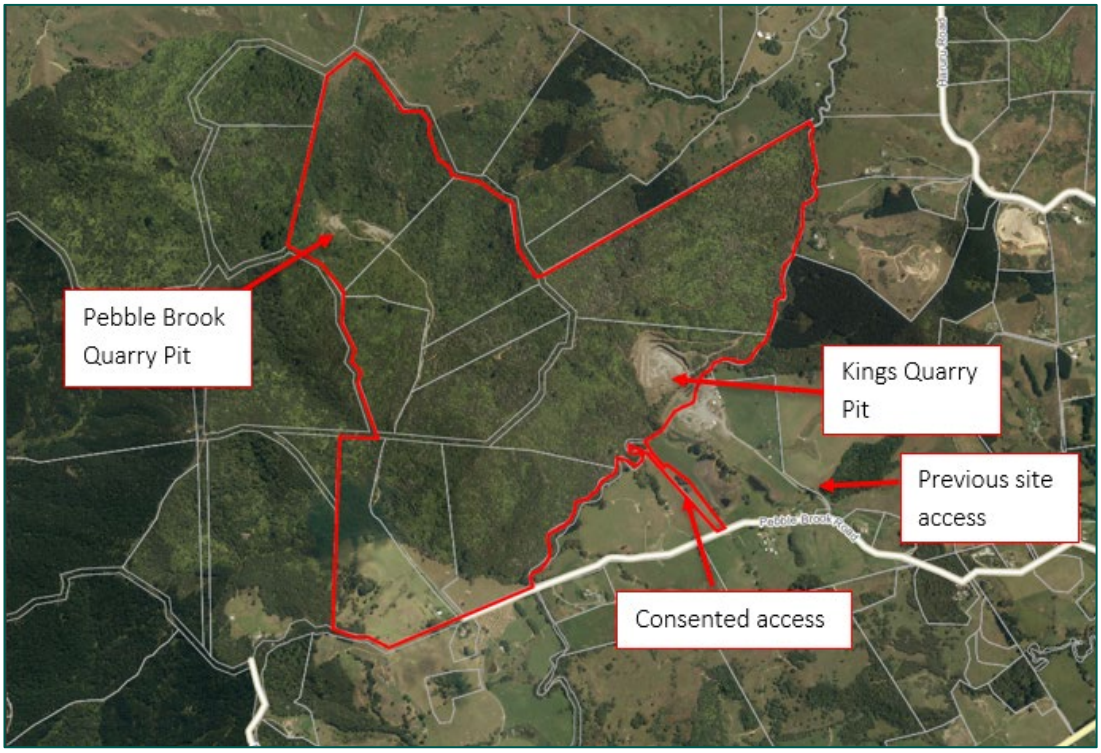

Figure 1: Overall Kings Quarry site (outlined in red) with the existing quarry pit locations. Source: B&A.

3.3 Kings Quarry Stage 1

Consents for Kings Quarry Expansion – Stage 1 ("Stage 1") were granted in 2021 for the recommencement of operations at Kings Quarry (extraction volume of approximately 300,000 tonnes per year), vehicle access and associated infrastructure to support future operations. The area of Stage 1 is identified in **Figure 2**, which outlines the new accessway and re-contour of the existing quarry face to make it compliant with New Zealand quarry standards. Stage 1 gained consent for the following:

- Approximately 8,750m^2 of indigenous vegetation removal at various locations across the site;
- The removal of 1,960m^2 of SEA vegetation within a quarry zone;
- New vehicle crossing of 12m;
- Mineral extraction activities of between 5-200 tonnes/hour, with approximately 144 tonnes/hour at maximum capacity;
- Approximately 30,000m^2 and 66,300m^3 of earthworks including 9,000m^2 of cut and 57,300m^2 of fill;
- Construction of a new bridge over the Waitoki Stream within a SEA;
- Earthworks within 10m setback of a natural wetland; and
- Temporary discharge and diversion of water within 100m of a natural wetland.

A copy of the Stage 1 resource consent can be found attached as **Appendix 4.**

The aggregate within the area encompassed by Stage 1 is close to being exhausted. The majority of the aggregate extracted from the Stage 1 area has been used for the required upgrades to

Pebble Brook Road, and for constructing haul roads within the Kings Quarry site. These upgrades were required prior to the Kings Quarry becoming operational, which is imminent. However, it is expected that the remaining aggregate within the Stage 1 area will only last until the end of 2025.

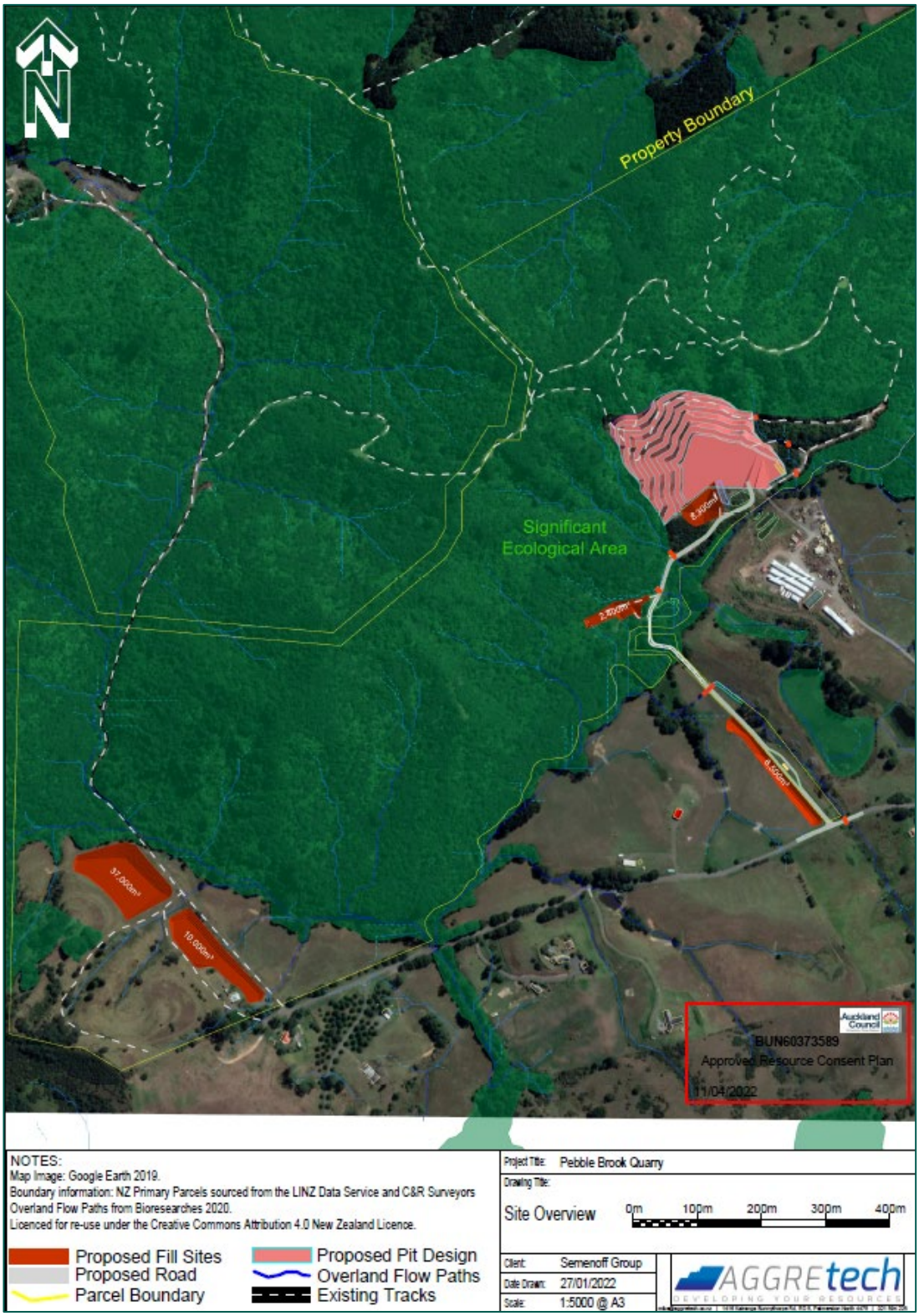

Figure 2: Kings Quarry Stage 1 consented area. Source: Appendix 4.

3.4 Application Under the COVID-19 Recovery (Fast-track Consenting) Act 2020

An application for the Proposal was lodged with the EPA on 13 December 2023 under the COVID-19 Recovery Fast-track Consenting Act 2020. In October 2024, the expert consenting panel issued its decision to decline the application due to gaps in ecological information provided to the Panel (a copy of the Panel's decision is included as **Appendix 5**). Within the Panel's decision it was noted that "there was not enough time in the FTA process to enable those gaps to be closed"[2]. The Panel confirmed that this did not mean a future proposal to extend the quarry could not be consented. The Panel identified that the zoning of the Kings Quarry Site anticipates and provides for quarry use, that expansion could have several positive benefits, and that the majority of the adverse effects could be appropriately addressed through measures and conditions of consent[3]. Following the decision, the Applicant has subsequently undertaken a large body of additional ecological monitoring and reporting to address those matters raised by the Panel. This work is included within the specialist reports accompanying the application and addressed throughout this report.

3.5 Kings Quarry Stage 3

It is noted that within Schedule 2 of the FTAA the listed project is for both Stage 2 and Stage 3 of the Kings Quarry expansion. This application relates only to Stage 2 of the expansion, as described in Section 6.0 below. During pre-lodgement correspondence with the EPA, it was confirmed that a substantive application can be made under Subpart 2 of the FTAA solely for Stage 2, as all of Stage 2 is within the original scope of the application to be a listed project within the Act (refer **Appendix 6**). However, as Section 42 of the Act specifies that only one substantive application for a listed project may be lodged, a separate referral application for Stage 3 would be required. A referral application for Stage 3 will be lodged at a later date. A copy of correspondence with the EPA is included within **Appendix 7**.

4.0 Application Requirements

For completeness, it is confirmed that the application satisfies the following requirements for a substantive application under the FTAA:

- The Project is a listed project in Schedule 2 of the Act, being the Kings Quarry Expansion – Stage 2 at Pebble Brook Road, Wainui, Auckland. All necessary resource consents under the RMA, and all necessary wildlife approvals under the WA, are sought within this application;
- In accordance with section 42 of the Act, the applicant, KQL, is the authorised person for the application as listed in Schedule 2 of the Act;
- An application checklist is provided as **Appendix 2**, outlining that all relevant information required under sections 43 and 44 of the Act is included within the application material;
- The pre-lodgement requirements for an application set out in section 29 of the Act have been met with the applicant undertaking consultation with the persons and groups referred to in

[2] Decision of the expert consenting panel for Stage 2 Expansion made under the COVID-19 Recovery (Fast-track Consenting) Act 2020 dated 14 October 2024 at [13].
[3] At [14].

section 11 of the Act as set out in section 7.0 below. Additionally, the application does not require an approval described in section 42(4)(l) or (m) of the Act;

- In accordance with section 30(6), the applicant has received a notice from Auckland Council, as the consent authority under section 30(3)(b), confirming that there are no existing resource consents for the same activity (refer **Appendix 8**); and
- All relevant fees, charges, or levies payable under applicable regulations will be paid upon lodgement of the application in accordance with section 43(1)(j).

5.0 Site Context

This section of the application is provided in accordance with clause 5 and 8 of Schedule 5, and clause 2 of Schedule 7 of the FTAA.

Copies of Records of Title for the site are attached at **Appendix 1**. A broad summary of the site and locality details is provided below.

5.1 Site Description

The wider Kings Quarry landholdings is approximately 167 hectares, with the Stage 2 Quarry expansion located within Allot 78 and Southern Portion of Allot 77 PSH of Kaukapakapa and Lot 1 DP 414617, as shown in **Figure 3** below. The Stage 2 area is approximately 54.5ha.

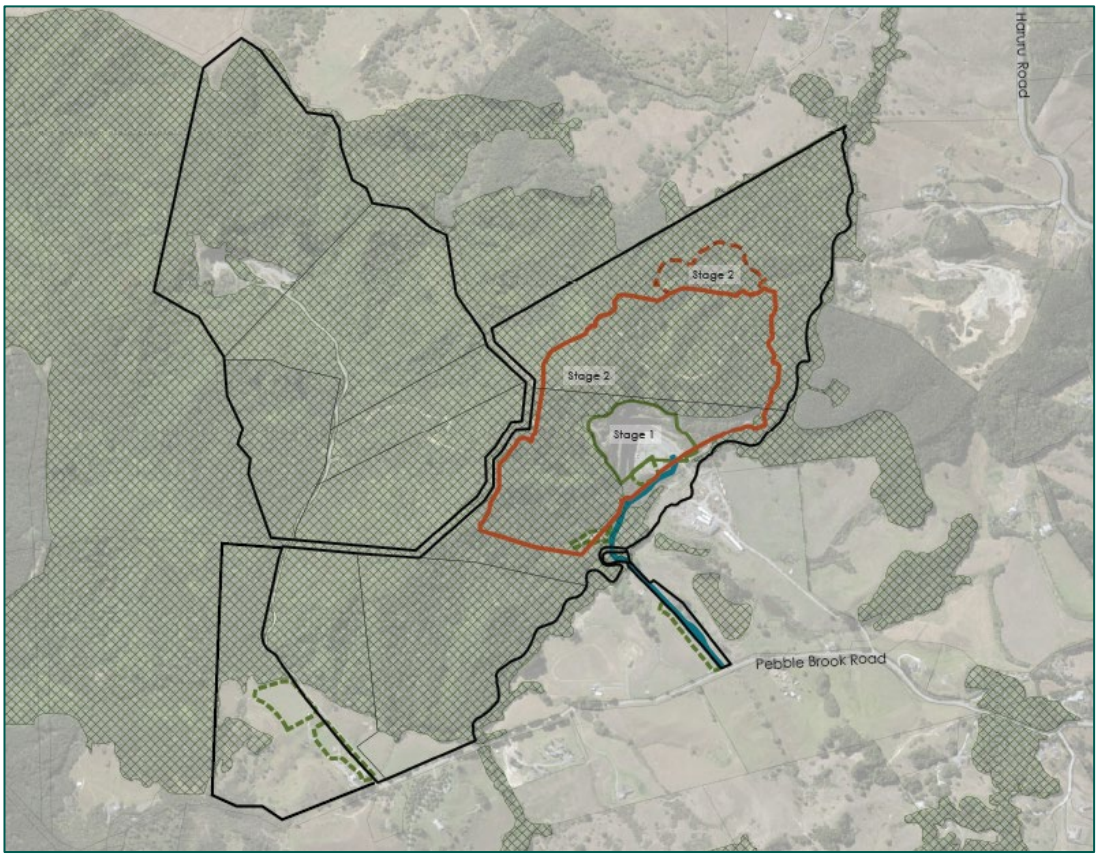

Figure 3: Locality plan. The Stage 2 expansion outlined in red within the wider Kings Quarry landholdings outlined in black line hatching. Source: B&A.

The table below summarises legal descriptions for the Site.

Record of Title
Lot 2 DP 59502
Lot 3 DP 59502
Allot s77 PSH of Kaukapakapa SO 817
Allot 78 PSH of Kaukapakapa SO 2448
Allot 28 PSH of Kaukapakapa SO 2448
Allot 71 PSH of Kaukapakapa SO 5223
Pt Allot 72 PSH of Kaukapakapa SO 5223
Pt Allot NE73 PSH of Kaukapakapa SO 817
Pt Allot SE73 PSH of Kaukapakapa SO 817
Lot 1 DP 414617
Lot 1 DP 59502

A covenant applies to Lot 1 DP 414617, Allot s77 PSH of Kaukapakapa SO 817 and Allot 78 PSH of Kaukapakapa SO 2448, which relates to the transfer, lease, or disposal of these parcels. It is considered that the covenant will have no effect on the Proposal given that the Proposal does not propose to transfer, lease or dispose these parcels.

The Site is of an irregular shape and is located approximately 10km to the west of State Highway 1. Aggregate in the form of 'Albany Conglomerate' was quarried on a small scale at two locations at the site from the mid 1930s to 1995. The existing quarry face can be seen in **Figure 4** below, which shows the natural rehabilitation that has occurred since previous quarry activities.

Figure 4: Previous quarry area with re-establishment of vegetation seen on the faces. Source: Site Visit 03/04/2025.

In 2021, as mentioned above, resource consent was granted for Stage 1 to enable the re-establishment of the quarry, undertake overburden removal and deposition and to establish the required vehicle access and associated buildings and structures (new site office, and weighbridge).

The new accessway, buildings, and the majority of roading upgrades have been completed in accordance with the Stage 1 approved consent. The current Site entrance is identified in Figure 5 below. The Pebble Brook Road / Waitoki Road intersection upgrades are the final roading works to be completed and are currently underway, with approximately four weeks remaining until completion. Following the completion of these works the quarry will become fully operational.

Figure 5: Current vehicle crossing with site office/weighbridge in the background. Source: Site Visit 03/04/2025.

With the exception of the existing quarry facilities, the wider Kings Quarry area is currently covered in bush. The existing footprint of the quarry is within a steep south facing slope, generally descending from north to south at slopes of some 35%.

The Site is zoned Special Purpose – Quarry, and Rural Production, and it is subject to a quarry buffer, significant ecological areas - terrestrial ("SEA"), and outstanding natural landscapes ("ONL") as identified in Figure 6 and Figure 7.

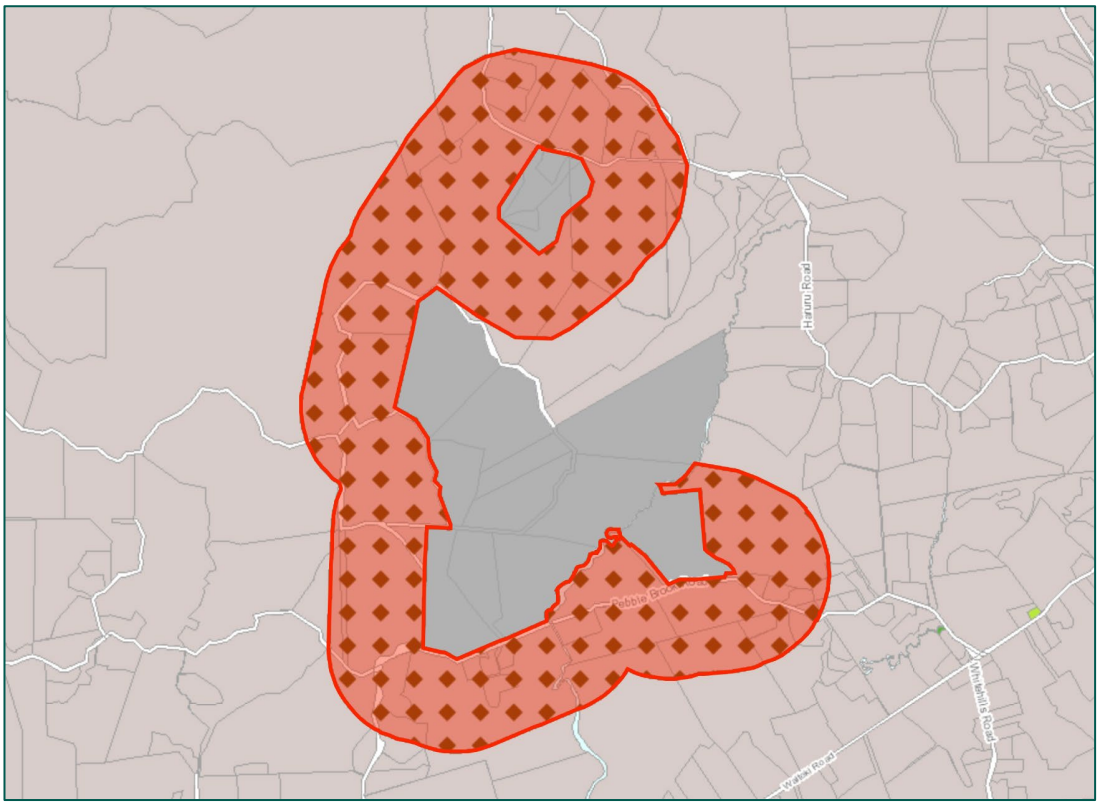

Figure 6: Kings Quarry buffer overlay area. Source: AUP(OP) GIS viewer.

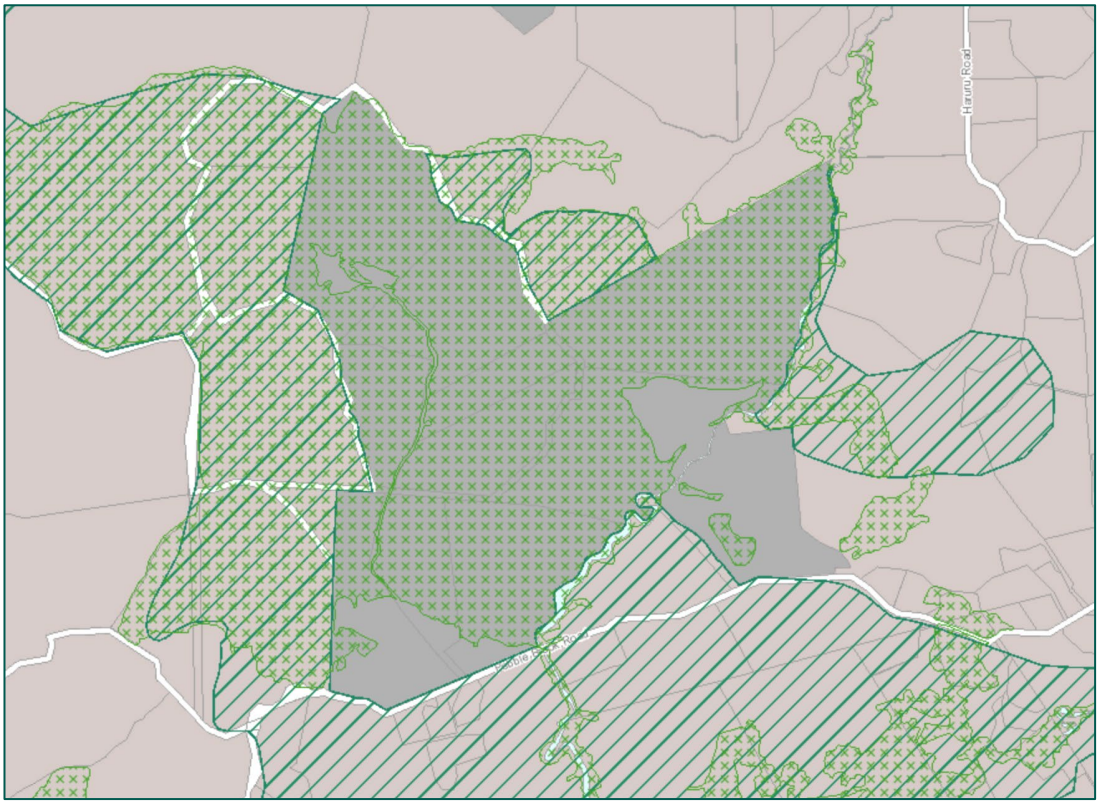

Figure 7: Image of relevant overlays across the wider site (cross hatching is SEA and line hatching is ONL). Source: AUP(OP) GIS viewer.

Auckland Council identifies various flora and fauna habitats across the Kings Quarry wider property. These have been identified as generally of high ecological value. The ecosystem extents across the Site are VS2, VS5, and WF11 and are identified in **Figure 8** and are summarised below.

- Regenerating kanuka scrub / forest (VS2, Regionally 'Least Concern', Singers et al. 2017);
- Regenerating broadleaved species scrub / forest VS5, Regionally 'Least Concern', Singers et al. 2017); and
- Mature kauri, podocarp, broadleaved forest (WF11, Regionally 'Endangered', Singers et al. 2017).

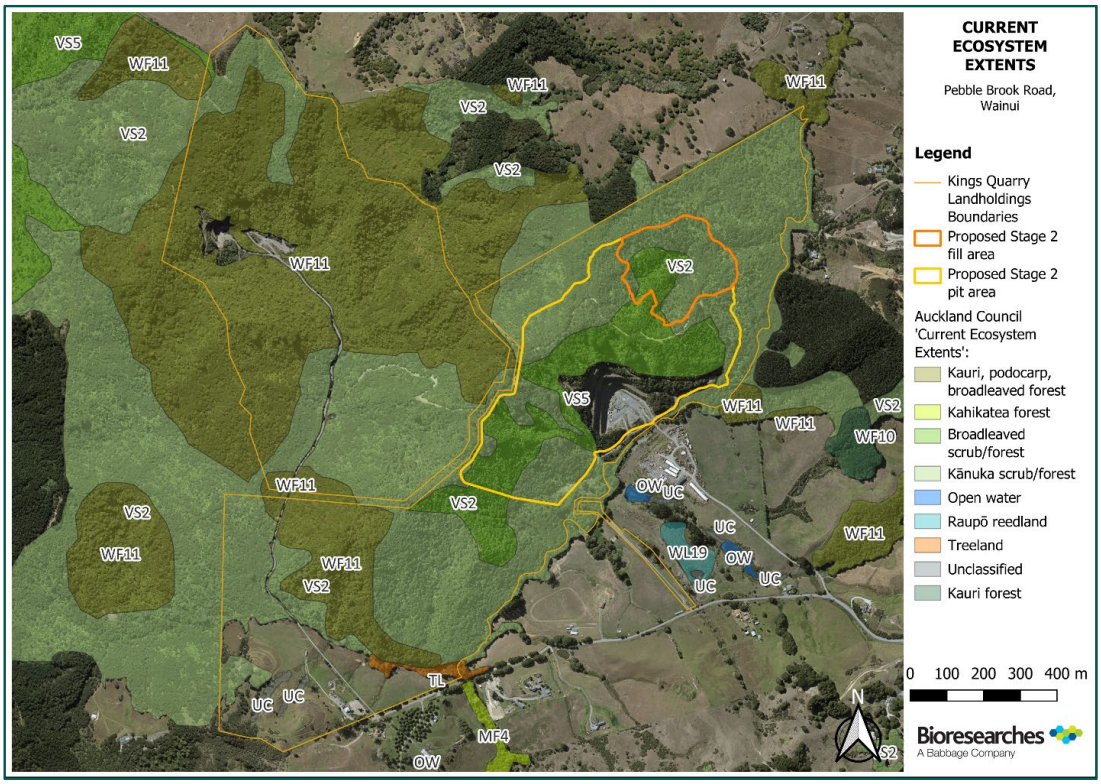

Figure 8: Auckland Council 'Current Ecosystem Extents' across the wider Kings Quarry property. Source: Appendix 9.

The Ecological Impact Assessment ("EcIA") prepared by Bioresearches in **Appendix 9** further examined the biodiversity values of indigenous vegetation within the Stage 2 area in September 2020 and August and September 2023, and December 2024, using a series of standard 20m x 20m Recce plots. This further analysis identified ecosystem extents across the Stage 2 Pit area to be VS2, VS5, and WF11 and are identified in **Figure 8** and are summarised below.

- **VS5 Habitats:** In Plot C pole tōtara and old kānuka were co-dominant and in plot D large tanekaha were dominant with tōtara a secondary canopy species. In both plots, tree ferns accounted for a proportion of the understory, and other regenerating species were generally representative of a broadleaf forest type;
- **VS2 Habitats:** In Plot 13, canopy species (in order of most to least abundant) included rewarewa, kānuka, kahikatea and tanekaha. In Plot 23, canopy species included kānuka, tanekaha, tōtara, lancewood, māhoe and māpou.

- **WF11 Habitats:** The canopy is composed of tanekaha and tōtara, with sparse emergent rewarewa. In the subcanopy silver fens were most abundant, followed by māpou, kānuka, māhoe and lancewood. Kauri trees within this ecosystem were represented by seedlings only, and no trees were observed within the site.

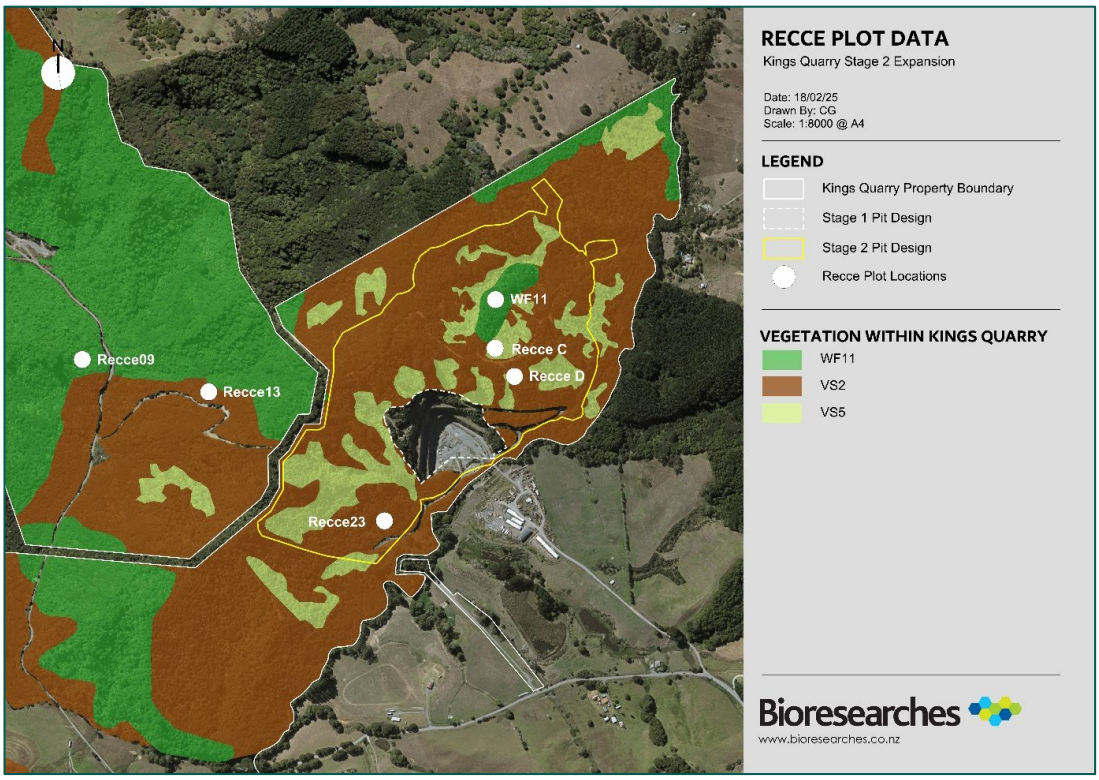

Figure 9: Recce plot locations and cosy stem extents in and around the Kings Quarry Expansion – Stage 2 Area. Source: Appendix 9.

Desktop and site investigations have been carried out by Bioresearches (Appendix 9) which determined the presence of the following fauna:

- Invertebrates (50 invertebrate species, 22 native species including wētāpunga, snails, millipedes, Auckland tree wētā, and spiders);
- Herpetofauna (Mokopirirakau granulatus – forest gecko, Naultinus elegans – elegant gecko, Oligosoma aenuem – copper skink, Lampropholis delicata – plague skink; all in low density populations);
- Birds (15 species, 9 native including kereru); and
- Bats (long-tailed bats and roosting habitat).

In terms of freshwater environments, Bioresearches identified 13 streams within the Site as outlined in Figure 9 and these comprise of 12 un-named intermittent streams and one un-named permament stream, all tributaries of Waitoki Stream. No wetlands were identified within the Site. 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.

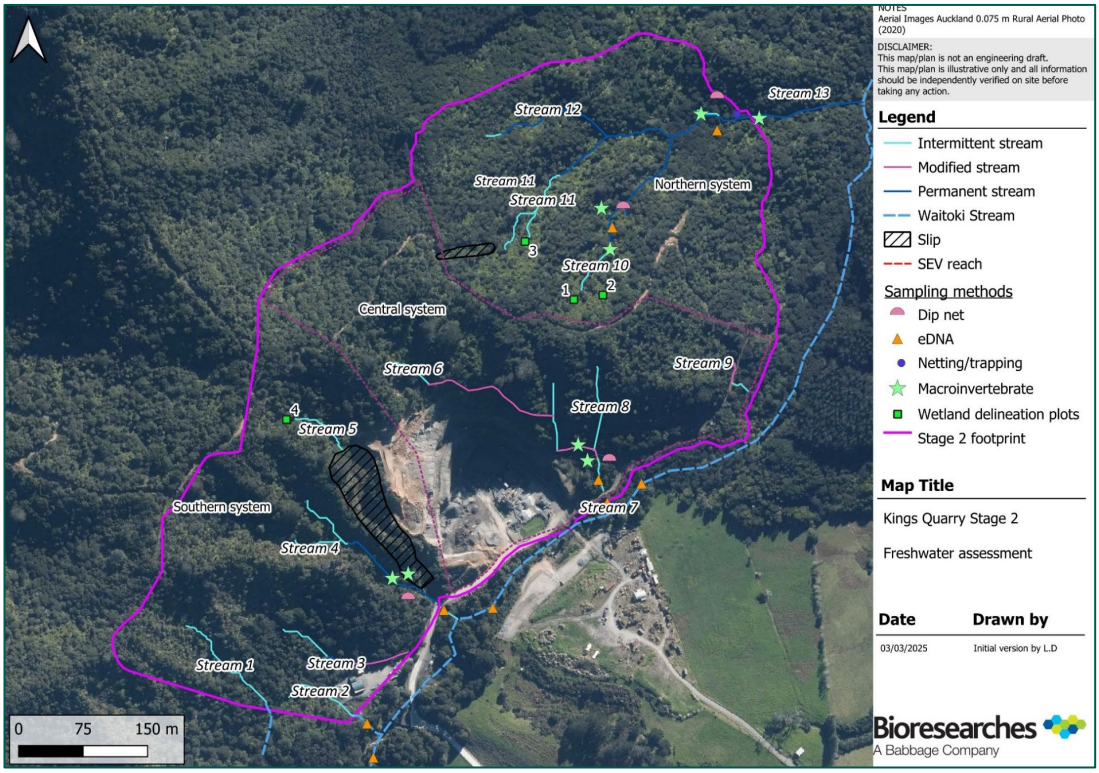

Figure 10: Identified streams and waterways across the Project area. Source: Appendix 9.

There is an identified archaeological site located to the north-east of the Site, on the wider KQL landholdings. This archaeological site is identified as a pit site (R10/918) and includes two 1m x 1m pit sites and is identified in Figure 11.

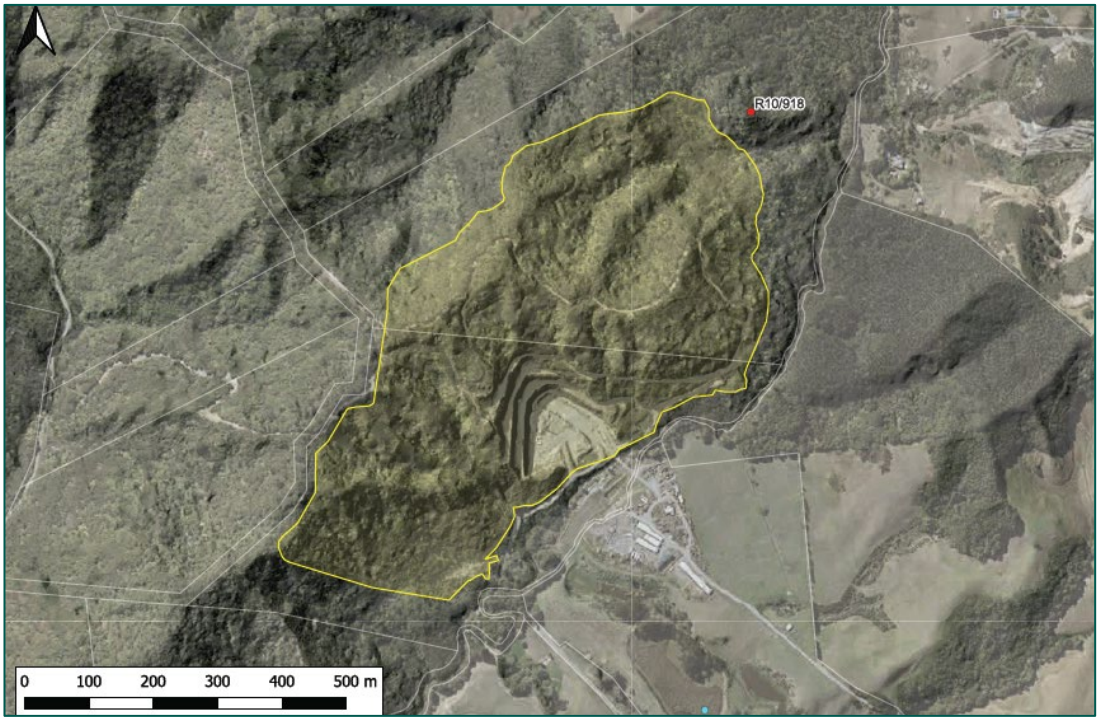

Figure 11: Aerial of the site with the adjacent archaeological site identified. Source: Appendix 10.

5.2 Surrounding Locality

The surrounding area is characterised by forested hill country to the west, north and east, and largely open rural land to the south, with a mixture of rural living, pastoral farming and rural industrial uses. Land use within the surrounding area is predominantly farming, rural living/hobby farming, and forestry. In addition to Kings Quarry, there is another operating quarry – Winstone Aggregate – Flat Top Quarry, located to the immediate north-east of the Site, as well as a cleanfill operation located to the east, at 782 Haruru Road. Other land uses include rural, commercial, and industrial activities such as film studios, truck/road maintenance yards, landscape yards, poultry farming, and apiaries. Overall, the surrounding locality has a rural hill country character, with farming and rural living settlement along the main Waitoki Road valley.

As shown in **Figure 12** and **Figure 13**, Kings Quarry is uniquely positioned to provide for the residential growth forecasted in the Auckland region, with target aggregate supply markets including North and West Auckland. It is located in close proximity to Future Urban Areas (Silverdale, Wainui, Dairy Flat, Kumeu-Huapai, Riverhead and Whenuapai). It is also approximately 10km to Silverdale town centre to the east. Approximately 5km to the west is the Kaukapakapa township, with Helensville further afield.

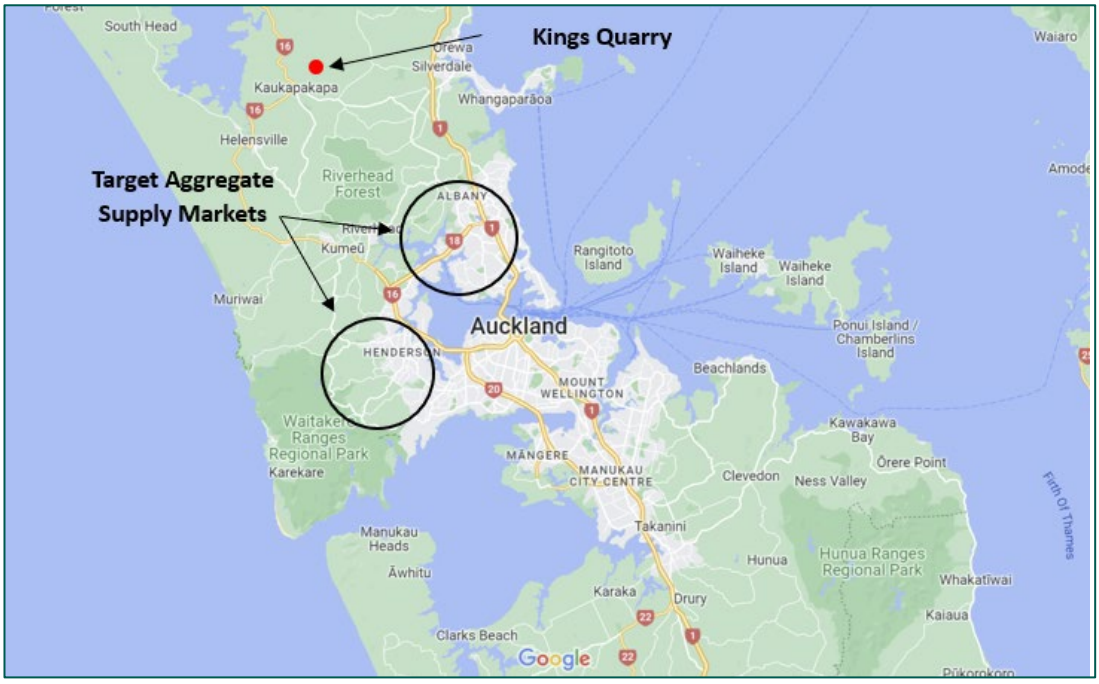

Figure 12: Location of Kings Quarry in relation to target aggregate supply markets. Source: Google Maps.

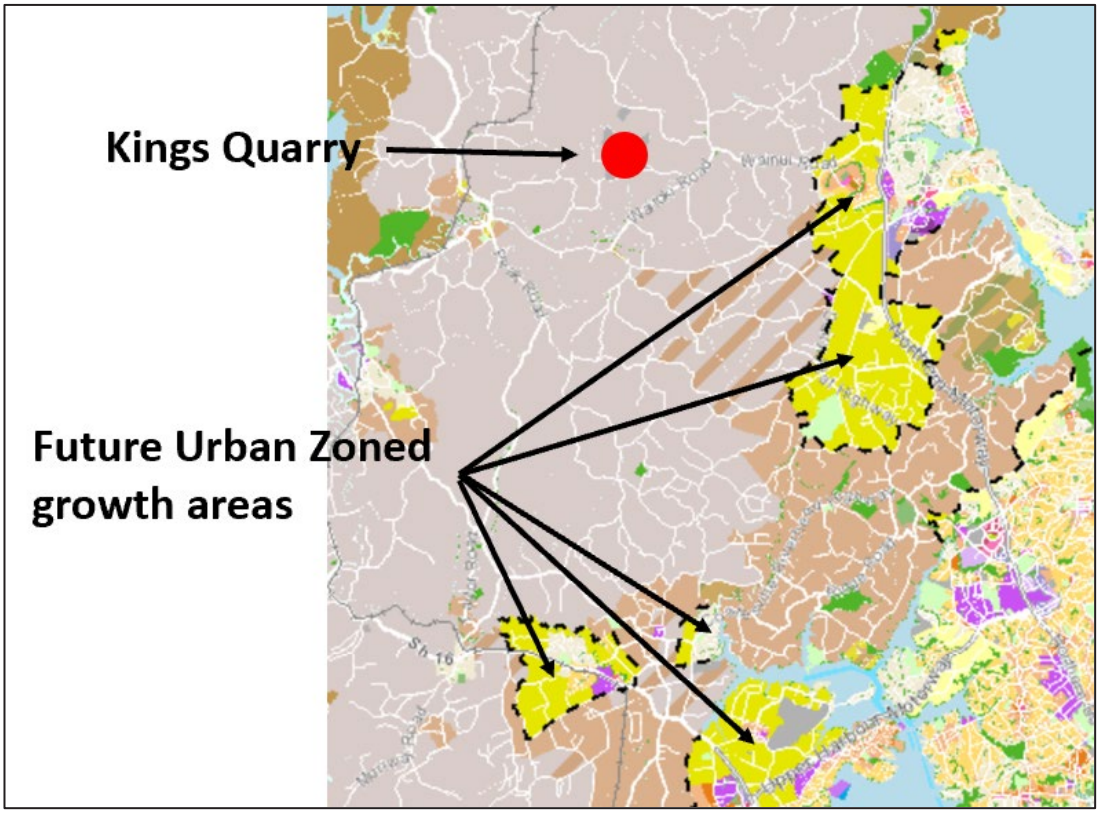

Figure 13: Location of Kings Quarry in relation to Future Urban Areas. Source: AUP(OP) GIS viewer.

5.3 Owner and Occupiers

In accordance with clause 5(1)(d) of Schedule 5 of the FTAA, the full names and addresses of the following are provided at Appendix 11.

(a) each owner of the site and of land adjacent to the site; and

(b) each occupier of the site and of land adjacent to the site whom the applicant is unable to identify after reasonable inquiry;

6.0 Proposal

This section of the application is a summary of the key elements of the Proposal provided in accordance with clause 5(1)(a) of Schedule 5 and clause 2 of Schedule 7 of the FTAA.

A summary of the key elements of the Proposal is set out below. More detailed descriptions on particular aspects of the Proposal are set out in the specialist reports and plans accompanying this application.

For completeness, the following approvals are sought under section 42(4):

- A resource consent (as an approval under section 42(4)(a)) that would otherwise be applied for under the RMA; and
- A wildlife approval (as an approval under section 42(4)(h)) that would otherwise be applied for under the WA.

6.1 Overview

KQL seek to expand quarrying activities at Kings Quarry in Wainui, Auckland, to enable up to 500,000 tonnes per year of aggregate extraction over a period of 45 years. The extracted material will eventually contribute to approximately 90% closed loop sustainable process including (but not limited to) decorative river pebbles, Gap4, Gap20, Gap40 and Gap65 (all metals used as a base course for constructing driveways, and pathways etc) as well as construction sand (used in concrete production and field and turf industries) that will have a lower concrete ratio requirement due to the smooth surface of the rock. The different materials that contribute to approximately 90% sustainability is outlined in **Figure 14**.

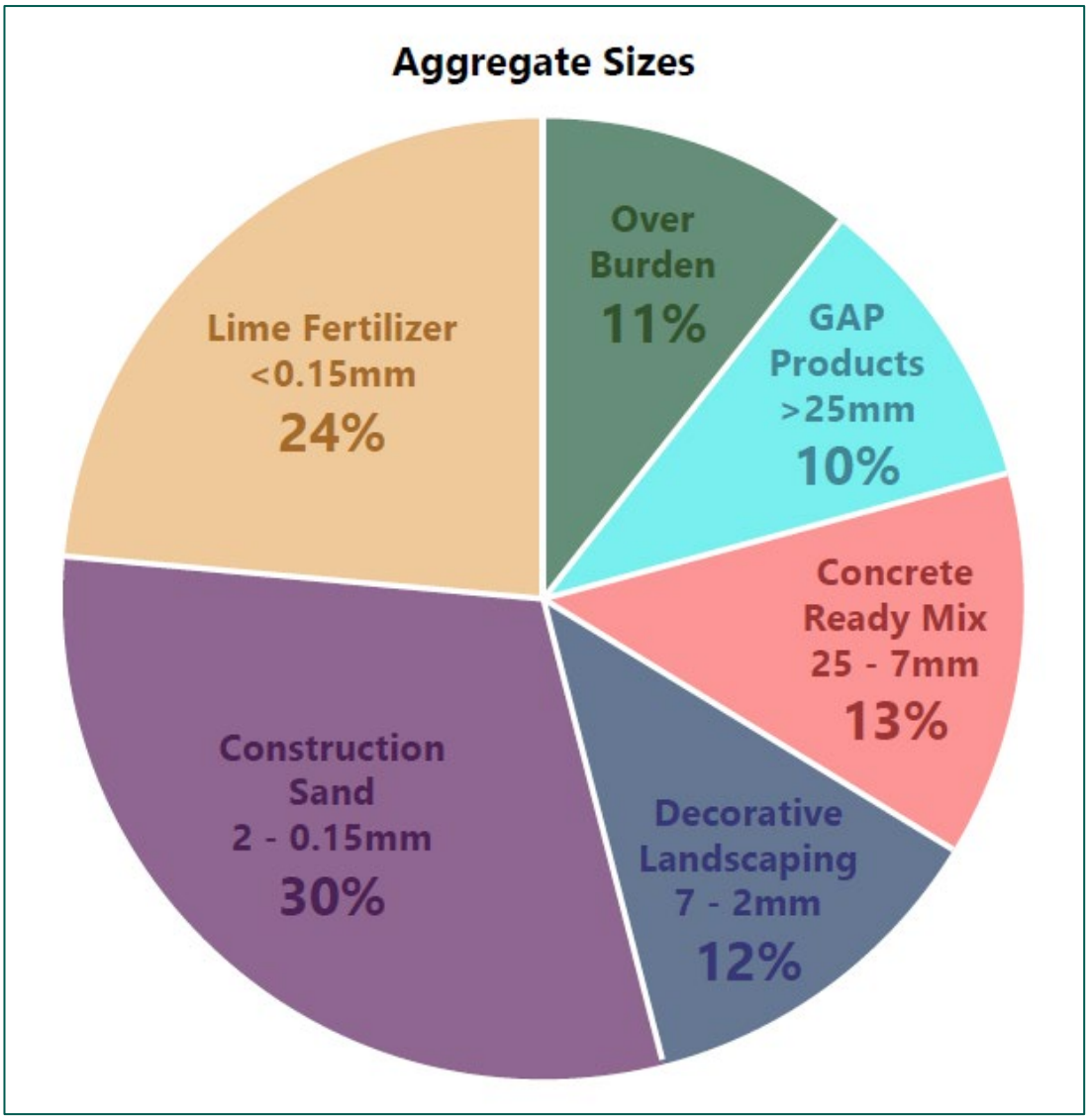

Figure 14: Pie chart showing approximate percentage of aggregate material (per grade). Source: B&A.

6.2 Quarry Activities

The proposed quarry footprint is identified in **Figure 15** below. The quarry activities will be undertaken in a staged manner, in which for the first 10 years approximately 300,000 tonnes of aggregate will be extracted each year. This staging is outlined in **Appendix 12** and **Appendix 13** which shows vegetation clearance and quarrying activities broken down into stages.

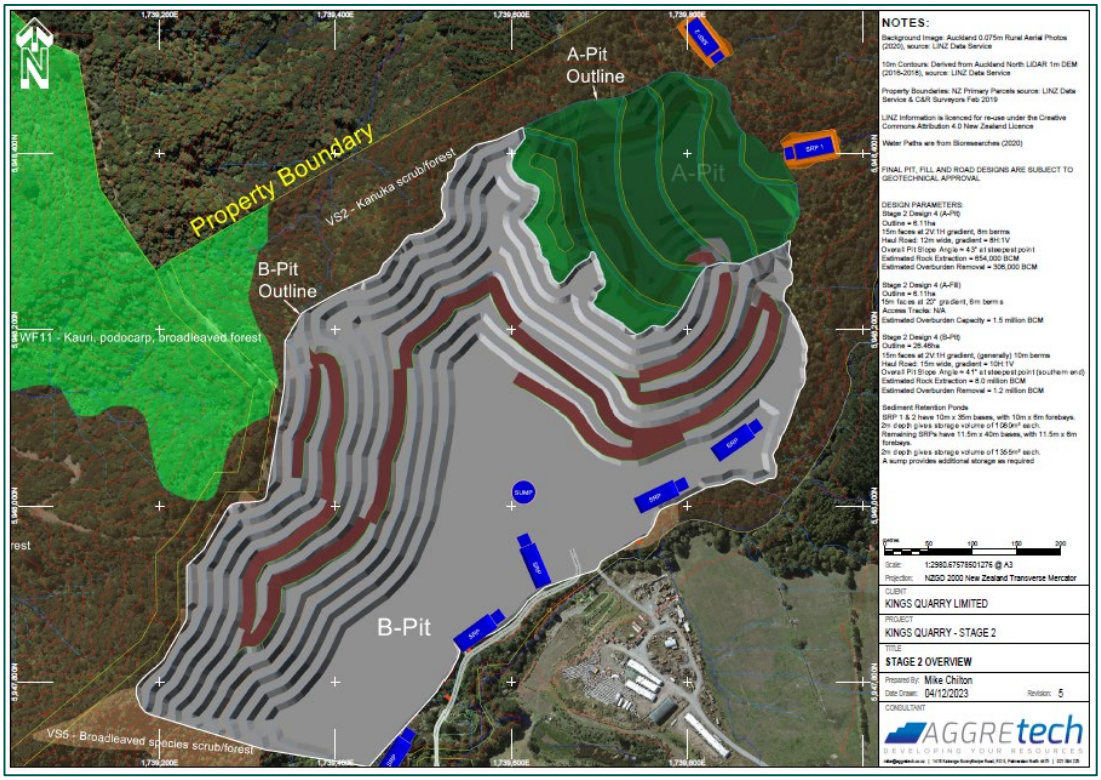

Figure 15: Proposed quarry (green area is A-Pit, brown area is the haul road, and the grey area is B-Pit). Source: Appendix 12.

In the first 5 years, it is proposed to excavate approximately 6.1ha for the formation of A-Pit, and will produce approximately 306,000 bank cubic meters (BCM) of overburden which will be removed and backfilled into the lower sections of the fill site, as the excavation progresses. The A-Pit design will have 15m faces, and a slope angle of approximately 43 degrees at the steepest point. Once completed, the A-Pit will have 15m faces at 20° gradient and 6m berms.

There is an identified archaeology site to the north-east of the A-Pit, this will not be disturbed as part of the works. An Accidental Discovery Protocol will be implemented and adhered to throughout the works on Site. The Accidental Discovery Protocol is proposed to be included as a condition of consent.

The main quarry pit (B-Pit) will be excavated from year 6, and will span to 26.46ha in the 45-year lifetime. Excavation will begin from the eastern ridgeline border, adjacent to the A-Pit, and progress south-west down the existing slope to meet the base of the existing Stage 1 quarry. 1.2 million BCM of overburden from the B-Pit will be removed and deposited along the haul road in the A-Pit throughout the lifetime, and approximately 8.0 million BCM of rock product will be extracted from the B-Pit overall.

Overall, the proposed earthworks volumes are summarised as follows:

Table 1: Summary of cut and fill balances.

	Cut (m^3)	Fill (m^3)
A-Pit (6.11 ha)	654,000	306,000
B-Pit (26.46 ha)	8,000,000	1,200,000
Total (32.57 ha)	8,654,000	1,506,000

Throughout this process, varying degrees of erosion and sediment controls are proposed, as outlined in the Erosion and Sediment Control Report, prepared by LDE, attached as **Appendix 14**. In summary, erosion and sediment control measures include:

- Eight sediment retention ponds ("SRP") for the fill site, B-Pit and haul roads, to be proposed in accordance with the quarry staging. There will be a maximum of six SRPs operating concurrently during quarrying activities;
- Chemical treatment is proposed for the SRPs and a Chemical Treatment Management Plan ("ChTMP") will be submitted to Council for certification as a condition of consent. The ChTMP from the Stage 1 consent has been attached as **Appendix 15** and will be used as a guide for Stage 2;
- Clean water diversion bunds and silt fences throughout the Site; and
- Standard daily operations including inspections, and sediment management and removal.

6.2.1 Access

In terms of access, a new site access from Pebble Brook Road has been formed as part of the approved Stage 1 works, as well as the widening of Pebble Brook Road and various improvements to the Pebble Brook Road / Waitoki Road intersection. These access arrangements are considered to be sufficient to service the quarry activities associated with the Project. This is confirmed in the Traffic Assessment Report provided by Commute at **Appendix 16.**

With respect to the pavement structure of Pebble Brook Road, an addendum to the Pavement Design Report prepared for Stage 1 is included as **Appendix 17**. The memorandum confirms that an additional 50mm basecourse depth plus the additional lime and cement stabilising is required to the pavement structure of Pebble Brook Road (from the approved quarry access to the intersection of Pebble Brook Road and Waitoki Road) compared to the current Stage 1 pavement design. This is to account for the additional truck movements from year 11. A pavement design check is required to be undertaken at detailed design to confirm this calculation and conditions of consent is offered to this effect.

To provide access between the A-pit and B-pit, it is proposed to form a stabilised access (Haul Road A) at the base of the Stage 1 quarry area, located at the beginning of the access road to the A-pit. An additional stabilised entrance is proposed to the base of Haul Road B. The haul roads are shown in **Figure 16**.

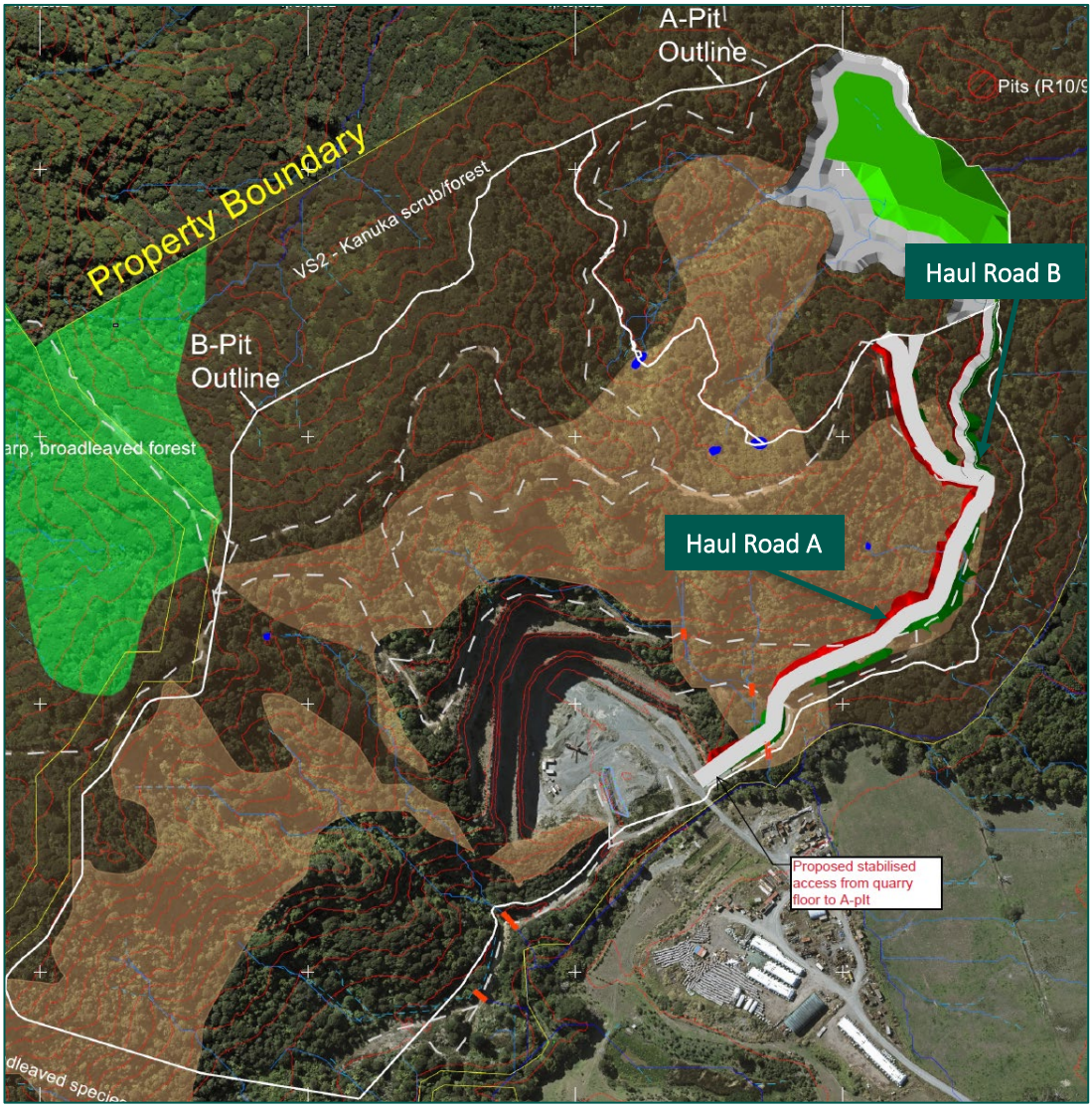

Figure 16: Proposed stabilised access from quarry floor to A-Pit. Source: Appendix 14.

6.2.2 Operation

It is proposed that the quarry will operate under similar operational noise, movement and hours of work parameters as the approved Stage 1 consent, being:

- Quarry operational hours from 5am-7pm Monday to Saturday only and not on public holidays;
- Truck movements in and out of the site, including loading of trucks, will be limited to between 6.30am – 5.30pm. Between 6.30am and 7.00am, there shall be no more than two return truck trips (and their loading); and
- No noise generating quarrying and mineral extraction activities including overburden removal works before 7:00am (Monday to Saturday).

6.2.3 Vegetation Removal and Stream Works

In order to provide for the proposed quarry expansion, existing vegetation in the A-Pit and B-Pit and accessway areas are required to be removed in the areas shown in **Figure 17** below. The total vegetation removal equates to approximately 28.97 hectares of indigenous vegetation. This

vegetation removal will be staged progressively throughout the 45-year lifetime of the Project, as shown in **Figure 18** below. Vegetation removal will occur at A-Pit in the first instance, and progressively move throughout the B-Pit, across the benches, down to the quarry floor. At any one time, the maximum area of vegetation removed is approximately 16.3 ha for the years 6-10.

Table 2 below shows the net area of cleared vegetation (once remediation planting is taken into account) relative to the quarry stage.

Table 2: Net area of cleared vegetation.

Quarry Stage	Area of vegetation cleared (m^2)
Year 1	56,127
Year 2	78,865
Year 3-4	87,957
Year 5	94,025
Year 6-10	163,000
Year 11-15	138,173
Year 16-20	147,321
Year 21-25	154,802
Year 26-30	158,513
Year 31-35	138,071
Year 36-40	138,545
Year 41-45	31,253

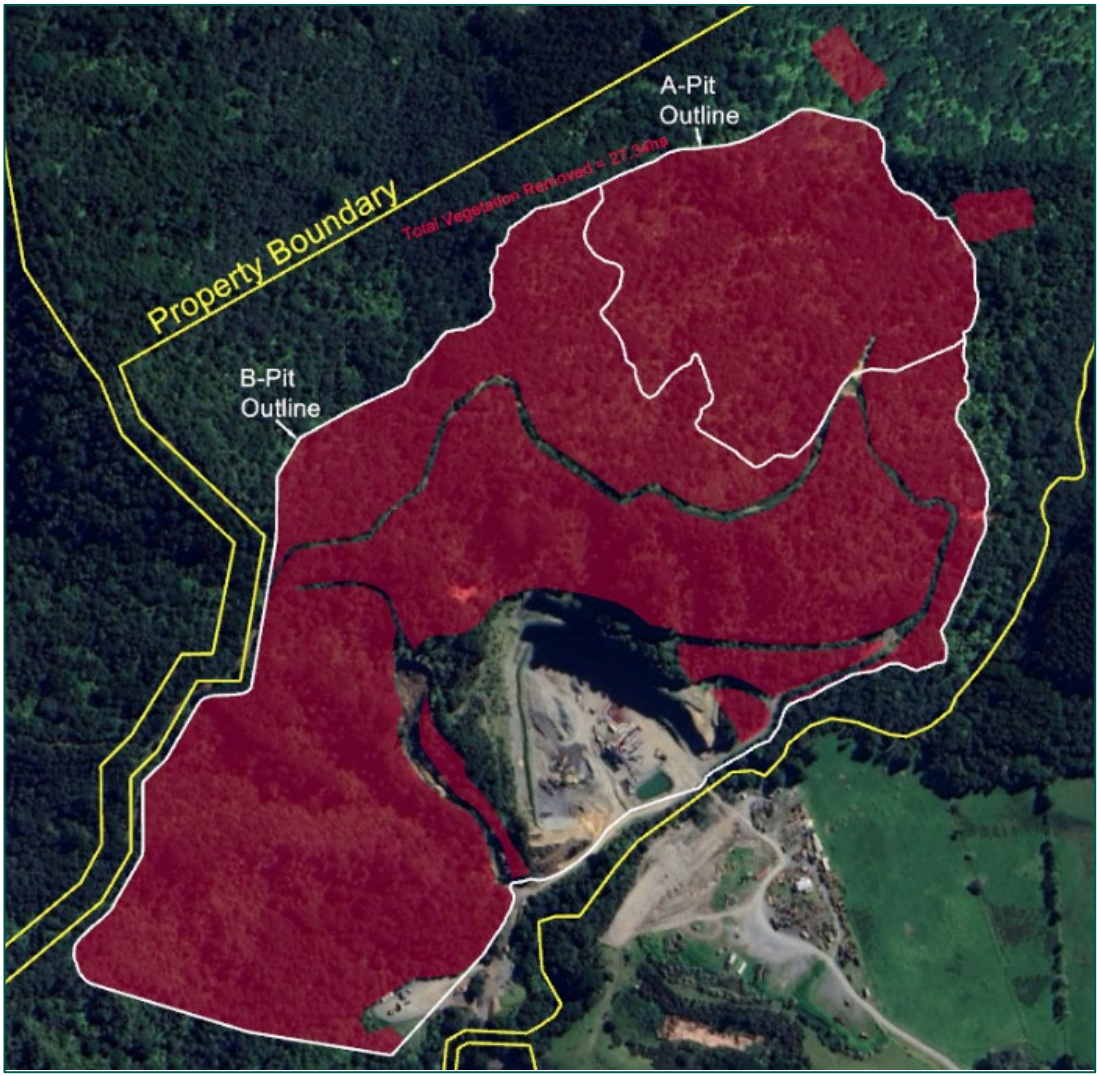

Figure 17: Proposed vegetation removal areas (indicated by red shading). Source: Appendix 18.

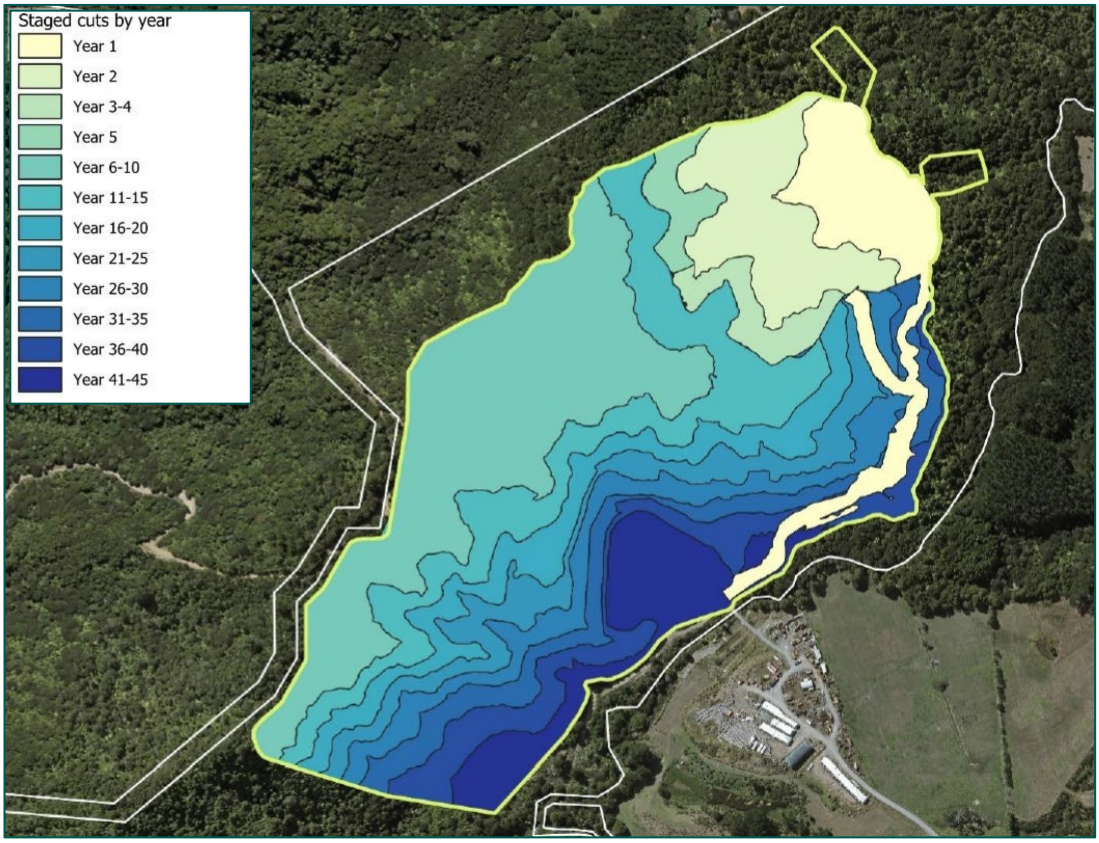

Figure 18: Proposed quarry cuts staging. Source: Appendix 19.

The Project includes the reclamation of 1,609m of natural intermittent stream, 238m of modified intermittent stream, and 280m of permanent stream, which results in the total reclamation of 2,439m of stream and 1,119m^2 of reclaimed aquatic habitat. The streams that are proposed to be reclaimed are identified in **Figure 10** above. It is also proposed to remove the existing weir from Waitoki Stream as part of this Proposal.

6.2.4 Remediation Planting

A total of 22.19 ha of the Project will be remediated sequentially. Remediation planting will be predominantly carried out in areas where quarry activities have been completed and are in a position to re-establish vegetation on the quarry benches and faces. A series of landscape remedial plans are proposed, and are enclosed in **Appendix 20** demonstrating the area of vegetation removal and remediation proposed. Landscape remediation will begin at year 1 and continue every year after that for the total 45-year period of the operation, as shown in **Figure 19** below. Following a portion of the site being cleared and quarried it will be back filled with overburden in the following year and planted. After this, a new area will be cleared and mined and the process will continue in that fashion for the total period of operation. 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, climbers are proposed for the base of the rock cuts to climb up the rock faces. **Figure 20** outlines the proposed rehabilitation extent at Year 41-45, which demonstrates the likely environment of the quarry when it reaches the end of its anticipated lifecycle.

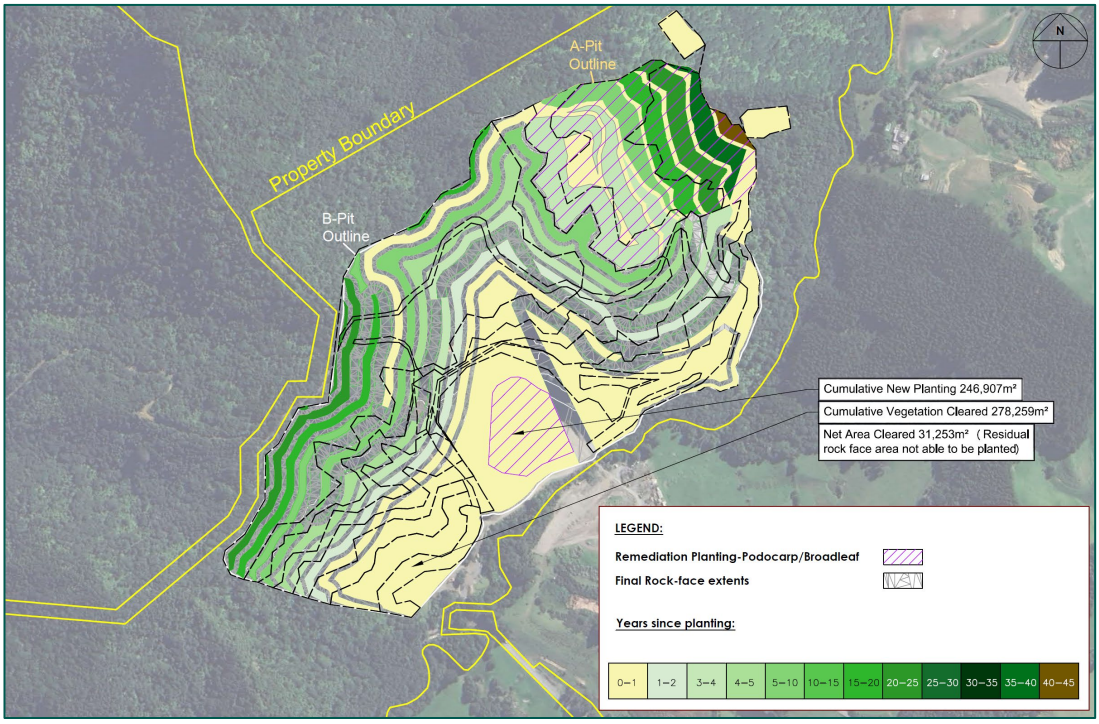

Figure 19: Proposed staging of remediation planting. Source: B&A.

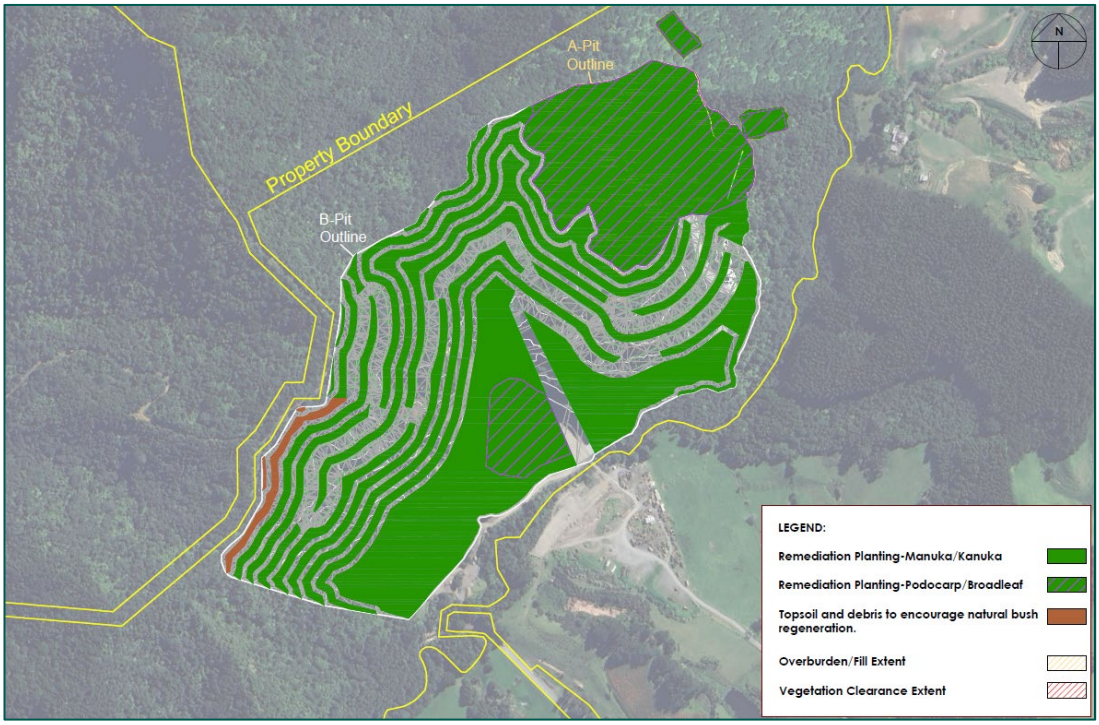

Figure 20: Proposed remediation planting. Source: B&A.

6.2.5 Replanting and Pest Management Within the Kings Quarry Landholdings

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 Lot 2 DP 59502 alongside existing SEA vegetation and 2.88ha of 'buffer planting' is proposed along the edge of the quarry footprint. The proposed management measures at Kings Quarry are shown below in **Figure 21**.

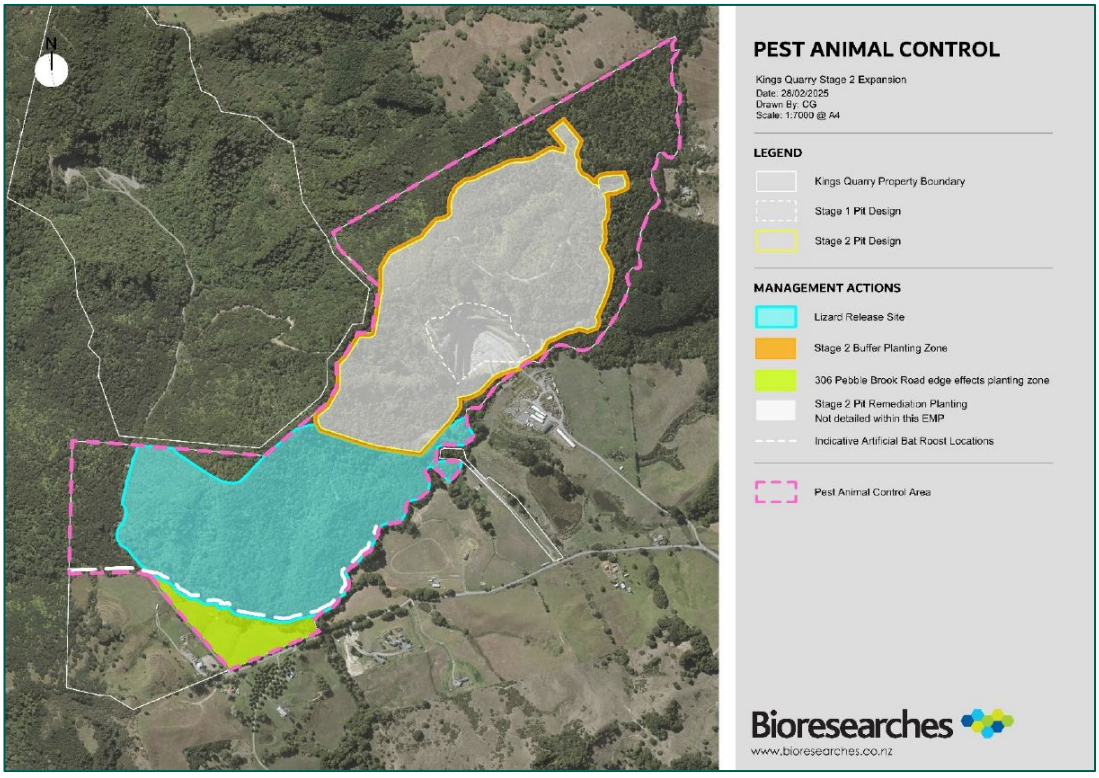

Figure 21: Proposed management measures at Kings Quarry. Source: Appendix 19.

6.2.6 Offsetting and Compensation

Following the above on-site mitigation and remediation, it is considered that the proposed reclamation of 2,439m of stream, and removal of 28.97 ha of SEA vegetation will have residual effects. As such, a comprehensive offsetting and compensation package has been prepared by Bioresearches to address residual effects (refer to Appendix 18 and Appendix 21). It is noted that the proposed offsetting and compensation will be undertaken in accordance with best current practice guidelines for achieving a net environmental gain. These include:

- 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; and
- Guidance on Good Practice Biodiversity Offsetting in New Zealand (Department of Conservation, August 2014).

In summary, to offset and compensate for the biodiversity losses, it is proposed to carry out the following actions.

- 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;
- Removal of a weir to allow for the restoration in connectivity to 3,468 m linear metres of stream extent;
- 2,893 meters of stream restoration through riparian planting and removal of fish barriers; and
- 6,400 m^2 of wetland restoration from exotic, unbuffered wetlands to indigenous wetlands with native buffer planting.

The location of offset and compensation sites are summarised below.

The offsetting and compensation package proposed by Bioresearches were peer reviewed by Alliance Ecology for terrestrial and Morphum Environmental for freshwater. Recommendations from these peer reviews have been included within the final packages, with a memorandum of support prepared by each peer reviewer included as Appendix 22 and Appendix 23.

Removal of Waitoki Stream Weir

The Waitoki Stream weir on site currently restricts freshwater connectivity through altering flow regimes and the movement and flows of sediments and aquatic fauna. It is proposed to remove the weir to allow for the restoration in connectivity to 3,468 m linear metres of stream extent in the upper Waitoki Stream. The removal of the weir will enable the movement of a diverse range of fish populations, through all life stages, to the upstream environment and provide access to a variety of high value aquatic habitats.

Oldfield Road Offset Site

The Oldfield Road offset site is located in Wellsford, 26km north of Kings Quarry, and sits within the same ecological district as the Site. It is currently owned by AJR Property Oldfield Limited, and will be used for both planting and enhancement offset. KQL and AJR Property Oldfield Limited are related companies with the director of AJR Property Oldfield Limited having a shareholding on KQL. It is proposed to construct a predator-proof fence encompassing 60ha of land, carry out pest browser control of the remaining existing vegetation outside the predator-proof fence (57.52ha), carry out 61.8ha of revegetation planting, 88.28ha of enrichment planting, 10m riparian planting across 629 linear metres of stream, and 6,400 m^2 of wetland restoration from exotic, unbuffered wetlands to indigenous wetlands with native buffer planting.

It is noted that a resource consent application under the RMA for the implementation of the predator-proof fence will be sought with Auckland Council separate to this application. This is required due to the offset site and related approvals not being included within the scope of the listed project within Schedule 2 of the FTAA.

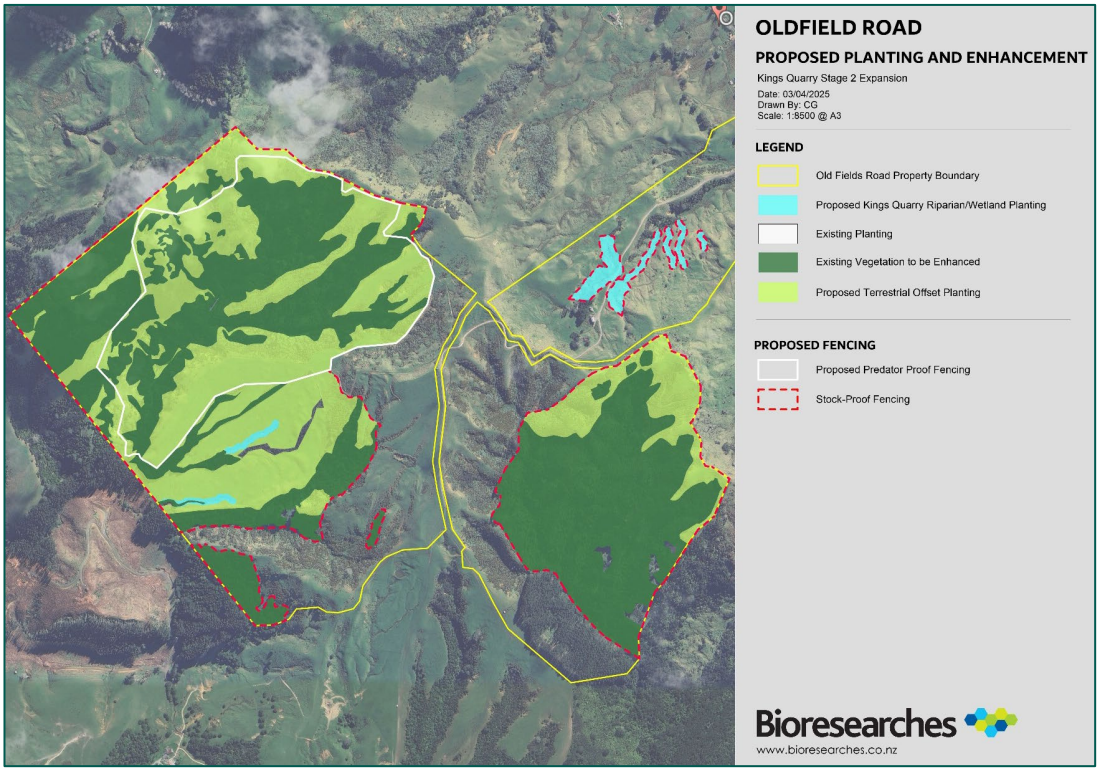

Figure 22: The location of all proposed planting and enhancement actions at the Oldfields Road property. Source: Appendix 24.

Hellyer Road Offset Site

The Hellyer Road offset site is located 1.5km north of Kings Quarry and sits within the same ecological district as the Site. It is proposed to carry out stream enhancement through undertaking 10m riparian planting across 2,264 linear metres of stream including removal of current fish barriers.

KQL has reached agreement in principle with the owners of the Hellyer Road offset site to provide for the stream enhancement, with the details of the agreement between the parties currently being finalised.

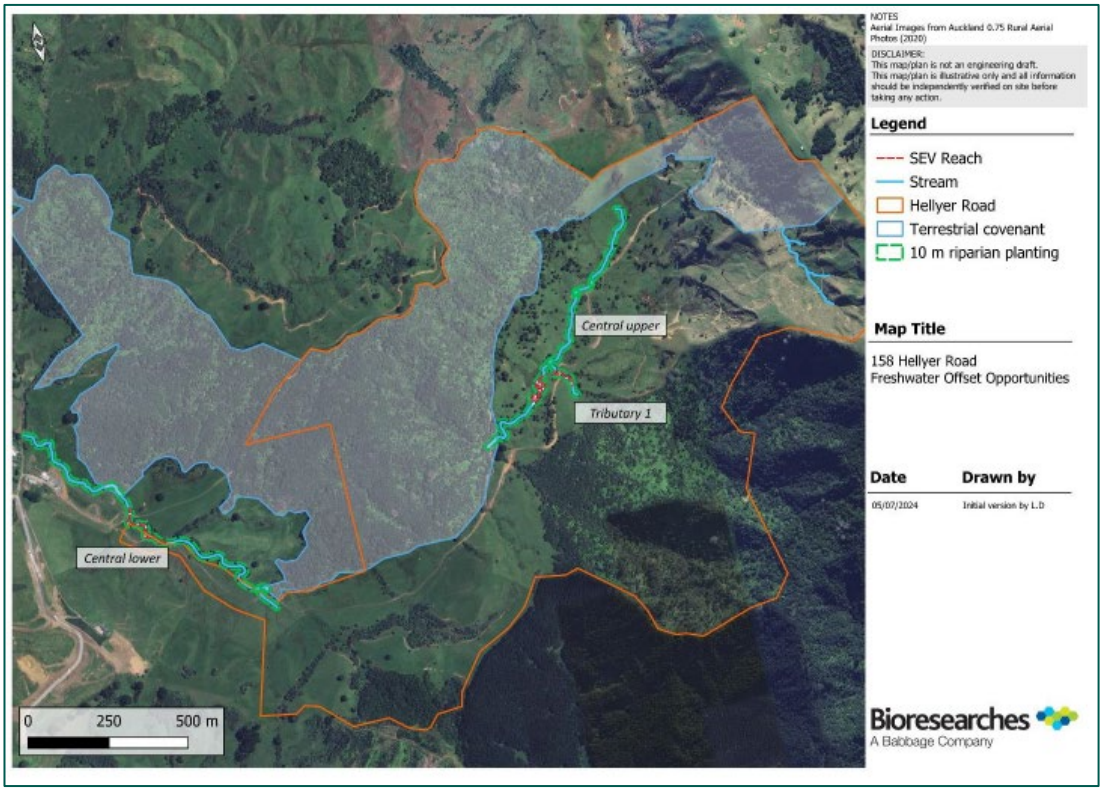

Figure 23: Stream restoration within Hellyer Road offset site. Source: Appendix 21.

7.0 Consultation Undertaken

This section of the application is provided in accordance with section 11 and 29 of the FTAA. Under Section 29 of the FTAA, before lodging a substantive application for a Listed Project, the authorised person for the project must consult the persons and groups referred to in Section 11.

An overview of the consultation undertaken with the persons and groups referred to in section 11(1) is provided below with further details and meeting minutes of that consultation provided in the Consultation Summary Report in Appendix 7.

Persons or Group	Consultation Undertaken
(a) Relevant local authorities	Consultation with Auckland Council has been ongoing for the Kings Quarry expansion since the start of the Stage 1 consent. Specifically for Stage 2, various meetings were held under the COVID-19 Recovery Fast Track process, noting that the proposal has remained unchanged excluding additional ecology reporting being undertaken. Consultation on the additional ecology reporting and the FTAA process was undertaken in November 2024. A further meeting with Council was held more recently on 21 March 2025 to discuss ecological matters and the application in greater detail, including the proposed management plans.

	Prior to lodgement a high-level discussion with Auckland Council's principal project lead was had regarding the proposed conditions within Appendix 25. It was set out that the proposed conditions have incorporated the comments made by the Council in the previous FTCA application process and the majority of changes relate to the conditions concerning ecological matters.
(b) Relevant iwi authorities, hapu and Treaty settlement entities, including: (i) iwi authorities and groups that represent hapū that are parties to relevant Mana Whakahono ā Rohe or joint management agreements; and (ii) the tangata whenua of any area within the project area that is a taiāpure-local fishery, a mātaitai reserve, or an area that is subject to bylaws or regulations made under part 9 of the Fisheries Act 1996.	There are no Treaty Settlement Statutory Acknowledgement Areas identified on Auckland Council's GeoMaps for the site or any adjacent properties. This does not apply because there are no relevant Mana Whakahono ā Rohe agreements that apply in the Project area. This does not apply because the project is for quarry expansion on land and therefore does not involve taiāpure-local fishery, a mātaitai reserve, or an area that is subject to bylaws or regulations made under Part 9 of the Fisheries Act 1996. Notwithstanding the above, consultation has been undertaken with relevant iwi authorities identified by Auckland Council with an interest in the area, as discussed below.
(c) any relevant applicant groups with applications for customary marine title under the Marine and Coastal Area (Takutai Moana) Act 2011.	This does not apply because the project is for a quarry expansion on land and does not involve any activities within the coastal marine area.
(d) Ngā hapū o Ngāti Porou, if the project area is within or adjacent to, or the project would directly affect, ngā rohe moana o ngā hapū o Ngāti Porou.	This does not apply because the Project area is not located within or adjacent to, and will not directly affect ngā rohe moana o ngā hapū o Ngāti Porou.
(e) The relevant administering agencies.	A pre-application meeting was held with the EPA on 25 of February 2025 to discuss the processes under the FTAA. No concerns were raised by the EPA and it was confirmed that a substantive application can be made under Subpart 2 of the FTAA solely for Stage 2. A record of engagement with the Ministry for the Environment ("MfE) has been included in the Consultation Summary Report included as Appendix 7. A letter from the MfE was received on 23 April 2025 outlining that the substantive application include an assessment

	of the project against any relevant national under the RMA, this assessment is included in Section 10.0 below. A draft copy of the application's ecological material was provided to the Department of Conservation ("DoC") for comment on 18 March 2025, with feedback received on the 17 April 2025 informing the lodged documents. A copy of the correspondence between DoC and the applicant has been included in the Consultation Summary Report included as Appendix 7.
(f) if the proposed approvals for the project are to include an approval described in section 42(4)(f) (land exchange), the holder of an interest in the land that is to be exchanged by the Crown.	This does not apply to the project.

Clause 6(1)(e)-(f) of Schedule 5 of the Act requires that an assessment of environmental effects under the FTAA must include the following information:

- Identification of persons who may be affected by the activity and any response to the views of any persons consulted, including the views of iwi or hapū that have been consulted in relation to the proposal; and
- If iwi or hapū elect not to respond when consulted on the proposal, any reasons that they have specified for that decision

Engagement has been undertaken with relevant iwi authorities identified by Auckland Council with an interest in the area. 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. A summary of the consultation undertaken, and correspondence received, is included in Appendix 7. Further, the applicant is committed to ongoing mana whenua engagement beyond the regulatory process.

PART B – RESOURCE CONSENT APPROVALS (UNDER SECTION 42(4)(a))

8.0 Planning Framework

8.1 Overview

This section of the application is provided in accordance with Schedule 5, clause 5(1)(h) of the Act which requires an assessment of the activity be provided against relevant provisions of the following documents provided in Schedule 5, clause 5(2) of the Act:

(a) A national environmental standard.

(b) Other regulations made under the Resource Management Act 1991.

(c) A national policy statement.

(d) A New Zealand coastal policy statement.

(e) A regional policy statement or proposed regional policy statement.

(f) A plan or proposed plan.

(g) A planning document recognised by a relevant iwi authority and lodged with a local authority.

The Project has been considered against the above documents in the following sections of this report as well as consideration of the Project against the items listed in Schedule 5, clause 5(3)(a)-(c).

The application seeks all resource consents necessary for the staged implementation and ongoing operation of the Project. The list of consents considered to be required is outlined below. For completeness, this application also seeks consent for any matters that are not listed below but which are subsequently identified as being necessary through the processing of this application. If such matters are identified, the applicant will, as a matter of urgency, provide to the EPA an assessment of any relevant adverse effects that are different to, additional to, or cumulative upon those discussed in this report, which would be generated by the Project as a result of the additional matters.

In summary, the Project requires non-complying activity consent overall under the AUP(OP) and discretionary activity under the NES-F. Overall, the Project is to be assessed as a non-complying activity.

The Site is zoned Special Purpose – Quarry under the AUP(OP) and is subject to the following overlays and controls under the AUP(OP):

- Natural Resources: Significant Ecological Area – SEA-T_6454;
- Natural Resources: High Use Stream Management Area;
- Natural Heritage: Outstanding Natural Landscapes Overlay, Area 9 Kaukapakapa; and
- Infrastructure: Quarry Buffer Area Overlay.

The Site is not located within a precinct or designation area.

The Site contains rivers and permanent streams, overland flow paths, flood prone areas, flood plains, and a recorded archaeological site.

The Proposal requires approvals for the matters as outlined below.

A detailed rules assessment against the applicable AUP(OP) and NES-F provisions is attached in **Appendix 26**.

It is noted that a resource consent application under the RMA for the implementation of the predator-proof fence will be sought with Auckland Council separate to this application. This is required due to offset site and approvals not being included within the scope of the listed project for Schedule 2 of the FTAA. This is discussed further in section 8.8 below.

8.2 Resource Management (National Environmental Standards for Freshwater) Regulations 2020

The NES-F regulates activities that pose a risk to the health of freshwater and freshwater ecosystems such as farming activities, reclamation of streams and wetlands, and the passage of fish affected by structures.

Resource consent is required under the NES-F regulations as follows:

- The Proposal involves the reclamation of 2,439m of stream. This is a **discretionary activity** under Regulation 57.

8.3 Other National Environmental Standards

The Proposal does not require resource consent under any other National Environmental Standards, including:

- National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health;
- National Environmental Standards for Air Quality;
- National Environmental Standards for Sources of Drinking Water;
- National Environmental Standards for Telecommunication Facilities;
- National Environmental Standards for Electricity Transmission Activities;
- National Environmental Standards for Plantation Forestry; and
- National Environmental Standards for Marine Aquaculture.

8.4 Auckland Unitary Plan (Operative in Part)

Reasons for consent under the AUP(OP) are as follows:

E3 Lakes, Rivers, Streams & Wetlands

- The Proposal involves the reclamation of 2,439m waterbodies within the Significant Ecological Areas Overlay. This is a **non-complying activity** pursuant to H3.4.1(A49).

E7 Taking, Using, Damming and Diversion of Water and Drilling

- The proposed excavations will result in the diversion of groundwater as it impedes the identified groundwater table. Dewatering associated with a groundwater diversion authorised as a restricted discretionary activity under the AUP(OP), not meeting permitted activity standards is a **restricted discretionary** activity under Rule E7.4.1(A20); and

- The Proposal involves groundwater diversion caused by excavation. This is a **restricted discretionary activity** pursuant to E7.4.1(A28).

E11 Land Disturbance – Regional

- The Proposal involves earthworks within the SEA overlay exceeding 5m^2 and 5m^3, with 325,700m^2 and 10,160,000m^3 (8,654,000m^3 of cut and 1,506,000m^3 of fill) proposed. This is a **restricted discretionary activity** pursuant to E11.4.3(A28) and E11.4.3(A30).

E12 Land Disturbance – District

- The Proposal involves earthworks greater than 5m^2 and 5m^3 within the riparian yards. This is a **restricted discretionary activity** pursuant to Rule C1.9(2).

E14 Air Quality

- The Proposal includes mineral extraction activities at a rate of between five and 200 tonnes/hour, with approximately 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). This is a **controlled activity** pursuant to E14.4.1(A90).

E15 Vegetation Management and Biodiversity

- The Proposal involves the removal of more than 250m^2 of contiguous indigenous vegetation outside the rural urban boundary (RUB), with approximately 28.97 ha of indigenous vegetation to be removed. This is a **restricted discretionary activity** pursuant to E15.4.1(A10).
- Part of the vegetation to be removed is within 20m of rural streams. This is a **restricted discretionary activity** pursuant to E15.4.1(A16).
- The Site is subject to an SEA overlay (SEA_T_6454) and the proposal involves the removal of approximately 28.97 ha of SEA vegetation within the Quarry Zone. This is a **discretionary activity** pursuant to E15.4.2(A44).

H19 Rural Production Zone

- The Proposal includes mineral extraction activities within the Rural Production Zone. This is a **discretionary activity** pursuant to H19.8.1(A60)

Note: Stage 2 will utilise the consented accessway to Pebble Brook Road and other facilities (weighbridge and control room area) within the Rural Production zoned land. While no physical changes are proposed to this infrastructure, consent is sought on a conservative basis to address their usage for Stage 2.

H28 Special Purpose – Quarry Zone

- The Proposal includes mineral extraction activities associated with the expansion of Kings Quarry. This is a **controlled activity** pursuant to H28.4.1(A7).
- The Proposal involves earthworks in a Quarry Zone greater than 2500m^2 and 2500m^3, with 325,700m^2 and 10,160,000m^3 (8,654,000m^3 of cut and 1,506,000m^3 of fill) proposed. This is a **controlled activity** pursuant to H28.4.1(A14) and H28.4.1(A15).

- The Proposal involves earthworks greater than 2,500m^2 where the land has a slope greater than 10 degrees. This is a **controlled activity** pursuant to H28.4.1(A17).
- The Proposal involves earthworks greater than 2,500m² within the Sediment Control Protection Area. This is a **controlled activity** pursuant to H28.4.1(A18).

8.5 Overall Activity Status

Overall, the application requires non-complying activity consent under the AUP(OP) and discretionary activity consent under the NES-F. The majority of activities either have a controlled, restricted discretionary or discretionary activity status under the AUP(OP). Non-complying activity consent is required for the reclamation of streams within the SEA Overlay.

In this case, we have taken a conservative approach and assessed the application overall as a non-complying activity. Where there is a group of activities in an application which are closely associated with each other, or are directed towards one dominant use or purpose, they should be assessed holistically as a single "bundle" according to the most stringent activity status. Part C1.5 (Applications for more than one activity) and Part C1.6 (Overall activity status) of the AUP(OP) also inform this judgment.

Therefore, the overall activity status for the Proposal is **non-complying** under the AUP(OP).

A comprehensive assessment of the Proposal against the statutory framework is provided in Sections 10.0 and 11.0 of this report.

8.6 Information Requirements

8.6.1 Clause 5 of Schedule 5 of the Act

Clauses 5 of Schedule 5 of the Act sets out specific information to be submitted to the Panel. These are addressed throughout the consent application and supporting technical documents. A checklist is included at **Appendix 7** which sets out how and where this information has been provided.

8.6.2 Auckland Unitary Plan – Special Information Requirements

There are no special information requirements relevant to the reasons for consent that are required under the AUP(OP).

8.7 Any Other Activities

This section is provided in accordance with clause 5(1)(e) of Schedule 5 of the FTAA. There are no other activities that are part of the proposal to which the consent application relates.

8.8 Other Resource Management Act 1991 Approvals

This section is provided in accordance with clause 5(1)(f) of Schedule 5 of the FTAA.

Resource consent is required for the proposed predator-proof fence at the Oldfields Road Offset Site. The Oldfield Road Offset Site is zoned Rural - Rural Production Zone and subject to a Significant Ecological Areas Overlay, Natural Stream Management Areas Overlay, and Outstanding Natural Features Overlay under the AUP(OP). Anticipated reasons for consent under the AUP(OP) are as follows:

- Fences located within a Feature Code 'A' Outstanding Natural Feature Overlay that are not a post and wire are a **restricted discretionary activity** pursuant to Rule D10.4.2(A6).

It is expected that any earthworks and vegetation removal required to facilitate the construction of the predator-proof fence can meet the permitted activity standards.

As confirmed by the EPA (refer **Appendix 7**), the offset site and associated approvals were not included within the scope of Schedule 2 and therefore cannot be sought as part of the substantive application. An application with Auckland Council under the AUP(OP) will be applied for in parallel to this application and has been discussed with the Council at the March 2025 pre-application meeting (refer **Appendix 7**).

8.9 Sections 5, 6, and 7 of the Resource Management Act 1991

Clause 5(1)(g) requires an assessment of the activity against sections 5, 6, and 7 of the RMA. These sections are contained within Part 2 of the RMA. An assessment of the Proposal against Part 2 of the RMA is provided in section 12.4 below.

8.10 Assessment of the Proposal Against Relevant Statutory considerations

Clause 5(1)(h) requires an assessment against any relevant provisions in any of the documents listed in Section 5(2) of Schedule 5. An assessment of the Proposal against these relevant statutory considerations is provided within section 10.0 below.

8.11 Treaty Settlement Provisions and Redress

Clause 5(1)(i) of Schedule 5 of the Act requires the provision of information about any Treaty Settlements that apply in the project area, including:

- The identification of the relevant provisions in those Treaty settlements; and
- A summary of any redress provided by those settlements that affects natural and physical resources relevant to the project or project area.

There are no Treaty Settlement Statutory Acknowledgement Areas identified on Auckland Council's GeoMaps for the Site or any adjacent properties.

The closest area of statutory acknowledgement is the Kaukapakapa river and tributaries to the south-west of the Site. Any potential effects associated with drainage to the stream is addressed in section 9.2.2 and are considered to be mitigated in conjunction with the draft conditions of consent included as **Appendix 25.**

All other iwi settlement Acts and Deeds have been reviewed and there are no other statutory acknowledgement areas, cultural redress properties or deeds of recognition that affect the Site.

8.12 Customary Marine Title Groups

Clause 5(1)(j) of Schedule 5 of the Act as it applies to the Project, requires a list of any relevant customary marine title groups, protected customary rights groups or applicants under the Marine and Coastal Area (Takutai Moana) Act 2011.

Clause 5(5)(b) of Schedule 5 of the Act requires that if an activity is to occur in an area that is within the scope of a planning document prepared by a customary marine title group under section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011 or the environmental covenant prepared by ngā hapū o Ngāti Porou under section 19 of the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019, an assessment of the activity against any resource management matters set out in that document must be provided.

This does not apply because the Project is for a quarry expansion on land and does not involve any activities within the coastal marine area.

8.13 Proposed Consent Conditions

This section of the application is provided in accordance with clauses 5(1)(k) and 18 of Schedule 5 of the Act. These clauses require that an application provide conditions of consent. With specific reference to clause 18 of Schedule 5, conditions have been drafted with reference to Section 108, which relate to Part 6 and 10, of the RMA. The proposed conditions of consent relating to necessary mitigation and monitoring, as identified within the technical assessments, are appended to this AEE at **Appendix 25**.

In recommending the proposed conditions of consent for this application in accordance with Clause 5(1)(k) of Schedule 5, the conditions are proposed to:

- Appropriately manage adverse effects, including providing mitigation to prevent or reduce adverse effects in accordance with Clause 6(1)(d) of Schedule 5;
- Provide for monitoring as required by Clause 6(1)(g) of Schedule 5; and
- Give effect to those matters that the Panel must consider under Section 81(2)(a)

The conditions are not considered to be more onerous than necessary, and comply with Section 83 with reference to Section 81(2)(d). It is considered that they meet the requirements of the Act, and that the Panel may grant the required approvals subject to the conditions in accordance with Section 81(1)(a) of the Act.

8.14 Notice Under Section 30

In accordance with clause 5(1)(l) of Schedule 5 of the FTAA, the applicant has received a notice from Auckland Council, as the consent authority under section 30(3)(b). The notice was received within the time frame specified in section 30(6)(b) and confirms that there are no relevant consents under section 30 (refer **Appendix 8**).

8.15 Permitted Activities

In accordance with clause 5(5)(a) of Schedule 5 of the FTAA, the following permitted activities are part of the proposal to which the consent application relates such that a resource consent is not required for the activities under section 87A of the RMA 1991.

8.15.1 Auckland Unitary Plan Operative in Part

E3 Lakes, Rivers, Streams and Wetlands

- Demolition or removal of existing structures complying with the standards in E3.6.1.13 as it relates to the removal of the weir is a permitted activity pursuant to Rule E3.4.1(A24).

Table 3: Compliance Standard E3.6.1.10

Standard E3.6.1.10	Assessment
E3.6.1.10(1) All works on existing structures must comply with all of the following standards:	
(a) during the activity bed disturbance upstream or downstream of the structure must not exceed 10m either side, excluding the length of the structure;	Bed disturbance upstream or downstream of the weir will not exceed 10m either side.
(b) best practice erosion and sediment control measures must be used to minimise any discharge of sediment, including sediment impounded behind an existing structure;	The works will be done in accordance with GD05 to minimise any discharge of sediment, including sediment impounded behind the weir.
(c) debris or other material must not be re-deposited elsewhere in the bed of the lake, river or stream, or within the one per cent annual exceedance probability (AEP) flood plain;	Debris or other material will not be re-deposited elsewhere in the bed of the stream or within 1% AEP flood plain.
(d) the activity must not cause more than minor bed erosion, scouring or undercutting immediately upstream or downstream; and	As noted above, the works will be done in accordance with GD05.
(e) the activity must not compromise the structural integrity of the structure.	The proposed weir removal will be undertaken in a manner such that it will not compromise its structural integrity.

Table 4: Compliance with Standard E3.6.1.13

Standard E3.6.1.13	Assessment
(1) The activity must comply with the standards in E3.6.1.10 above.	Refer to Table 3 above.
(2) The structure must be removed from the bed as far as practicable.	The weir will be removed in its entirety from the bed.
(3) Any remaining sections must not be a hazard to public access, navigation or health and safety.	The weir will be removed in its entirety and there will be no remaining sections that could be of hazard to public access, navigation or health and safety.
(4) The bed must be restored to a profile that does not inhibit water flow or prevent the passage of fish upstream and downstream in waterbodies that contain fish.	Following the removal of the weir, the streambed will be reinstated and restored to a profile that facilitates unimpeded water flow and enables the passage of fish both upstream and downstream.
(5) For removal of a dam or weir: (a) the modification must not commence until as much of the impounded sediment as is practicable has been removed from behind the structure; and (b) best practice endeavours must be used to minimise the discharge of sediment impounded by the structure.	The modification will not commence until as much of the impounded sediment is removed from behind the weir. As noted above, the works will be done in accordance with GD05 to minimise the discharge of sediment impounded by the weir.

E15 Vegetation Management and Biodiversity

- Pest plant removal is a permitted activity pursuant to Rule E15.4.1(A6) and E15.4.2(A36).
- Conservation planting complying with the standards in E15.6.3 is permitted activity pursuant to Rule E15.4.1(A7) and E15.4.2(A37).
    - In accordance with standard E15.6.3(1), the conservation planting is for ecological restoration purposes only.
    - The proposed conservation planting is located outside the Outstanding Natural Features Overlay, Outstanding Natural Character Overlay, High Natural Character Overlay or the Outstanding Natural Landscapes Overlay and therefore standard E15.6.3(2) is not applicable.

H28 Special Purpose – Quarry Zone

- Conservation planting is a permitted activity pursuant to Rule H28.4.1(A3).

8.15.2 Resource Management (National Environmental Standards for Freshwater) Regulations 2020

It is noted that there are no permitted activity standards for the removal of the weir within Waitoki Stream, for pest plant removal, or for the conservation planting under the NES-F.

8.16 Mitigation and Monitoring Measures

Clause 6(1)(d) of Schedule 5 of the Act requires that an assessment of an activity's effects on the environment must include a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect of the activity.

A number of mitigation measures are proposed to ensure that the Proposal will comply with the permitted activity standards of the AUP(OP), to address actual and potential effects on the environment relative to specific subject matters, but are not strictly limited to:

Subject Matter	Mitigation and Condition Response
Terrestrial and Freshwater Ecology	• Ecological Management Plan ("EMP") provided as draft in **Appendix 19** and the implementation of final required as consent condition. Management plans included within the EMP include: o Vegetation Removal Management Plan o Avifauna Management Plan o Bat Management Plan o Lizard and Invertebrate Management Plan o Native Freshwater Fish Relocation Plan o Threatened Plant Management Plan o Kauri Dieback Management Plan o Edge Effects and Buffer Management Plan o Mammalian Pest Control Plan (for the Site and Oldfield Road site)

	• Kauri Dieback Management Plan draft provided within the draft EMP and the implementation of final required as consent condition. • Progressive rehabilitation of the Site through the implementation of the Remediation Planting Plan (refer **Appendix 20**). • Streamworks Management Plan as a condition of consent. • Stream and Wetland Enhancement Restoration Planting Plan provided as a draft within the Residual Effects Management Plan ("REMP") (refer **Appendix 24**) and the implementation of final required as consent condition. • Biodiversity monitoring as consent condition. • Weir removal to be undertaken in accordance with permitted activity standards and required as consent condition. • Erosion and sediment controls in accordance with best practices contained in GD05 provided as draft in **Appendix 14** and the implementation of final as consent condition. • Chemical Treatment Management Plan as consent condition. Stage 1 ChTMP provided in **Appendix 15.** • Adaptive Management Plan as consent condition. • Monitoring and Contingency Plan to monitor potential effects on stream baseflow (as consent condition refer **Appendix 25**).
Operational matters	• Erosion and sediment controls in accordance with best practices contained in GD05 provided as draft in **Appendix 14** and the implementation of final as consent condition. • Chemical Treatment Management Plan as consent condition. Stage 1 ChTMP provided in **Appendix 15.** • Adaptive Management Plan as consent condition. • Monitoring and Contingency Plan to monitor potential effects on stream baseflow (as consent condition refer **Appendix 25**); • Quarry Management Plan (refer **Appendix 27**); • Conditions of consent relating to operating hours and restriction on truck movements pertaining to certain hours/times of the day; Conditions of consent relating to Stage 1 transport upgrades required to be implemented prior to Stage 2 quarry operations; • Implementation of the Kauri Dieback Management Plan for lifetime of the quarry. Following completion, pavement monitoring of a portion of Pebble Brook Road (from the approved quarry access to the intersection of Pebble Brook Road and Waitoki Road) as consent conditions.

Dust Emissions	• Dust Management Plan provided as draft in **Appendix 28** and the implementation of final required as consent condition. • Air discharge review under s128 of the RMA as consent condition.
Groundwater	• Monitoring and Contingency Plan as consent condition. • Waitoki Stream flow monitoring as consent condition.
Noise and Vibration	• Noise and Vibration Management Plan as a condition of consent. • During construction acoustic and blast conditions to manage noise and vibration effects. • Following completion acoustic monitoring to ensure ongoing compliance.
Geotechnical	• Earthworks to be in accordance with recommendations in geotechnical report and required as consent condition (refer **Appendix 29**).
Landscape and Visual	• Progressive rehabilitation of the Site through the implementation of the Remediation Planting Plan (refer **Appendix 20**).
Archaeology	• AUP Accidental Discovery Rule (Standards E11.6.1 and E12.6.1) as consent condition.
Cultural Values	• Requirement for cultural inductions prior to commencement of the first stage of the quarry including vegetation removal and streamworks in consent conditions. • Requirement for provision of cultural monitoring prior to commencement of the first stage of the quarry including vegetation removal and streamworks in consent conditions.

Clause 6(1)(g) of Schedule 5 of the Act also requires that if the scale and significance of the activity's effects are such that monitoring is required, an AEE assessment of effects includes a description of how the effects will be monitored and by whom, if the activity is approved.

The monitoring that is proposed as part of the quarrying activities is also documented in the proposed draft consent conditions and technical assessments appended to this AEE.

8.17 In accordance with clause 6(1)(d) of Schedule 5 of the FTAA, Protected Customary Rights

Clause 6(1)(h) of Schedule 5 of the Act requires an application to include an assessment of any effects of the activity on the exercise of a protected customary right.

There are no protected customary rights that relate to the site and as such an assessment under Clause 6(1)(h) of Schedule 5 is not required.

9.0 Assessment of Effects

This section of the application is provided in accordance with clauses 5(4), 6 and 7 of Schedule 5 of the FTAA. These provisions require an assessment of the actual or potential effects on the environment. Clause 6 of Schedule 5 sets out information required to assess environmental effects. Clause 7 of Schedule 5 sets out the matters to be covered in the assessment of the environment effects. **Appendix 11** identifies the owners and occupiers of the land adjacent to the Project area. The persons identified in **Appendix 11** are considered to be the same people who may be affected by the activity (with reference to clause 6(1)(e) of Schedule 5) and are considered in the assessment of effects below relative to the respective disciplines or topics identified.

The actual and potential effects of these matters on people in the neighbourhood and, where relevant, the wider community, as well as on the environment more generally, are assessed below and in the supporting technical reports submitted with this application. Having regard to the above, the scope of the application and consents required, it is considered that effects on the environment in relation to the following matters are relevant:

- Positive Effects to address matters within Clause 7(a);
- Ecological Values to address matters within Clause 7(c);
- Archaeological Values to address matters within Clause 7(d);
- Transportation to address matters within Clause 7(a) and 7(b);
- Dust to address matters within Clause 7(a) and 7(b);
- Landscape and Visual to address matters within Clause 7(a) and 7(b);
- Hydrology and Groundwater to address matters within Clause 7(a) and 7(d);
- Geotechnical and Site Stability to address matters within Clause 7(a) and 7(g);
- Noise to address matters within Clause 7(a) and 7(f);
- Land Disturbance to address matters within Clause 7(a), 7(c), 7(d), and 7(e);
- Cultural Values to address matters within Clause 7(a) and 7(d);
- Climate Change and Natural Hazards to address matters within Clause 7(g)
- Social Effects to address matters within Clause 7(a); and
- Economic Effects to address matters within Clause 7(a)

These matters are set out and discussed below.

9.1 Positive Effects

The Proposal will be an enabler for construction and development activities across the Auckland region, by increasing the access to aggregate locally. Additionally, the Proposal will result in significant local employment benefits (21.5 FTEs annually, and 968 FTEs throughout the quarry lifetime). We note that this is related to direct employment focused on the mining and quarry industry. Further employment is projected to be sustained across industries such as professional services, transport and manufacturing.

The Economic Impact Report in **Appendix 30** prepared by M.E Consulting and the Greenhouse Gas Emissions Report, prepared by Air Matters in **Appendix 31** outlines the following positive effects as a result of the Proposal:

- The extracted material will eventually contribute to an approximately 90% 'closed loop' sustainable process, as set out in section 6.1 above);
- Advanced access to aggregate materials within the Auckland Region. Currently Auckland accounts for only 22% of the national aggregate production. The Project will assist Auckland to reduce its reliance on imported aggregate and reduce the total transport requirement to access aggregate;
- The local supply of aggregate will contribute to a more stable aggregate price and will assist in project economic viability, as well as better feasibility to future projects;
- All material sourced from the proposed quarry (equivalent to 500,000t/year) will be used within the Auckland region with target local markets being North Shore and West Auckland;
- Increased local supply of decorative pebble to the Auckland market (100,000t/year) making up 40% of the local market, and reducing the need to import from other regions (currently it comes from Manawatu and South Island);
- The Project will result in the delivery of additional capacity to the Auckland market approximately three years earlier than a standard consenting pathway would follow and will offset the Auckland shortfall outlined earlier;
- The value of the Project to Auckland's economy is estimated to be in the order of approximately $214.2 million (undiscounted) with $103.3 million of this from direct impacts;
- The expected (annual) transportation savings is $19.8-23.3 million; and
- The emissions cost reductions by enabling aggregate supply to come from Kings Quarry (rather than out of the region) will result in an annual reduction of 12,551 tonnes which equates to ~0.35% of New Zealand's total heavy vehicle CO_2 equivalent GHG emissions.

Overall, the Project is considered to result in a significant contribution to industry and the economic and social well-being of communities, as well as significant reductions in transport related costs and transport greenhouse gas emissions.

9.2 Ecological Values

An EcIA has been prepared by Bioresearches and is included in **Appendix 9.** This assessment considers in detail the impacts of the Project on ecological values.

As described above, the Project will result in permanent, complete loss of all existing freshwater and terrestrial habitat within the Site. However, it is noted that at an early stage of the Project, the quarry was redesigned to avoid high value kauri podocarp forest. Further to this, through the design and technical input, further refinements in the design of the Project involved moving the location of A-Pit from the north-eastern corner of the property boundary to immediately adjacent the B-Pit to reduce further fragmentation of the SEA vegetation. This is demonstrated in **Figure 24** and **Figure 25**. As the wider Kings Quarry property is scattered with many watercourses, avoidance of streams was not feasible, however, the pit design avoids permanent streams to the greatest extents possible.

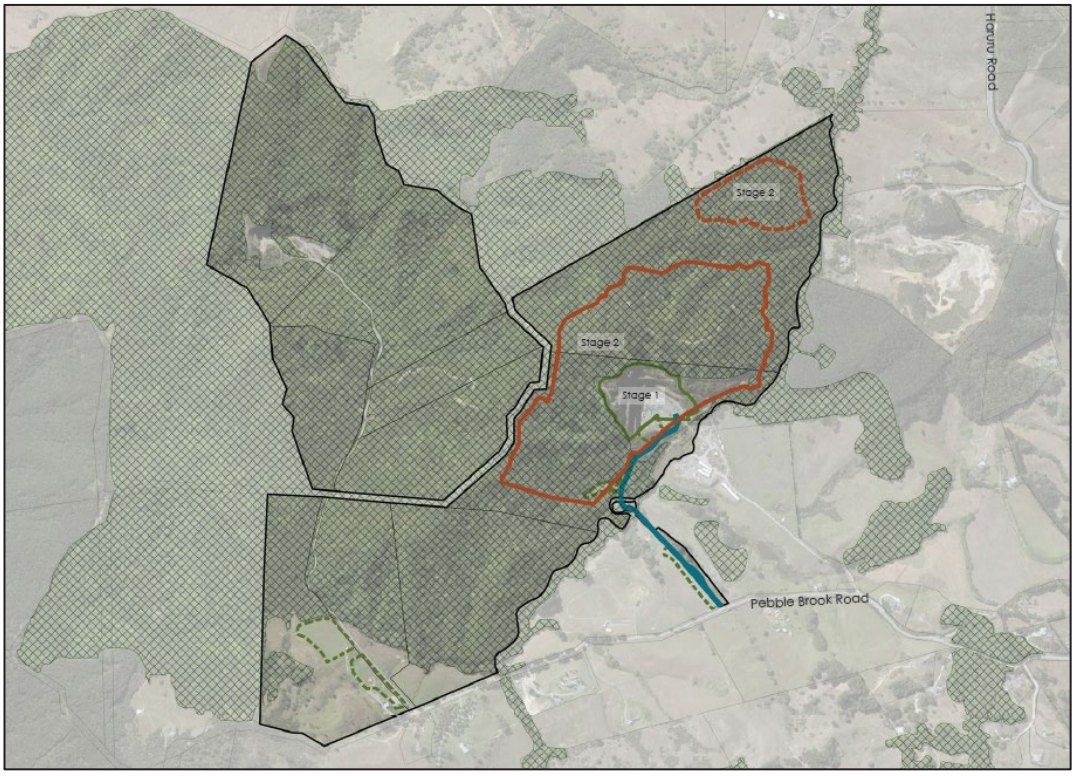

Figure 24: Early stage quarry design of A-Pit to the north east of the main quarry. Source: B&A.

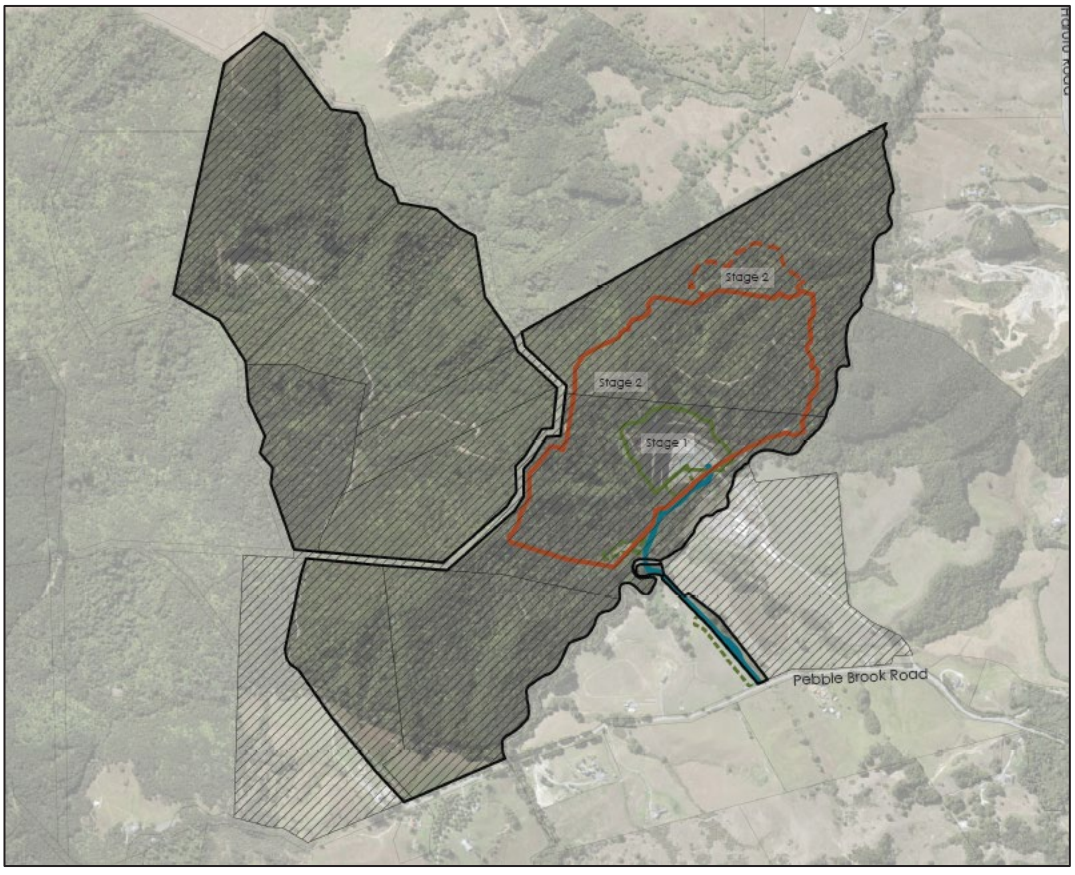

Figure 25: Proposed location of A-Pit adjacent to the main quarry. Source: B&A.

9.2.1 Terrestrial Ecological Values

The potential effects on terrestrial ecological values include the removal of habitats for terrestrial fauna. In this case, the Project would include the loss of approximately 28.97 ha of vegetation comprising of VS2 (19.75 ha), VS5 (8.03 ha) habitat, and WF11 (1.19 ha), which equates to approximately 8.42% of the overall SEA_T_6454 habitat. These habitats have been identified as generally of high ecological value that support threatened and at-risk fauna and flora, such as two species of flora, three confirmed and two other potentially present at-risk lizards and threatened long tailed bats. With respect to terrestrial flora and fauna, their ecological values range from nil to high as summarised below:

- At Risk Plants: During the site walkovers, 13 plant species with an elevated threat status were identified within the Project area. The majority of ecosystems present within the Project area (VS2, VS5, and AVS1) are generally not considered to be threatened. The WF11 is classified as endangered. As noted above these habitats have been identified as generally of high ecological value.
- Invertebrates: The Project area supports a range of nationally and regionally common native invertebrate species of low value. Potentially-present higher values species, such as the At-Risk rhytid snail, have not been recorded and are not generally associated with regenerating ecosystems. The overall value for invertebrate species assemblages is low.
- Frogs: The Project area is unlikely to support native frogs given no frogs were detected during repeated habitat surveys and eDNA sampling as well as the limited availability of suitable habitat on site.
- Lizards: Three species of lizard with a threat classification of 'At Risk – Declining' are known to be present within the Project area. The overall value for lizards is high.
- Birds: There is a very high abundance of bird species within the Site, in particular kereru, which, in a modified landscape, where most of the larger native forest birds are not present, become important vectors for dispersal of native plants which have large seeds and/or fruits; as well as the local presence of the less-common, albeit 'Not Threatened' tomtit within the wider Kings Quarry Landholdings. The overall value for birds is moderate.
- Bats: Given the detection of long-tailed bats within the Site, but also considering the low number of passes recorded during the survey and the limited number of potentially suitable roost trees within the project area, the overall value for bats is very high.

While the proposed SEA vegetation removal is minor in extent when having regard to the overall extent of SEA vegetation, the removal of this habit would reduce connectivity to the north and eastern parts of the SEA and result in edge effects for the remaining vegetation immediately around the perimeter of the Site. Management measures including edge and buffer planting, pest control and ongoing remediation will be implemented to minimise adverse edge effects on retained and protected indigenous vegetation around Stage 2 pit edge.

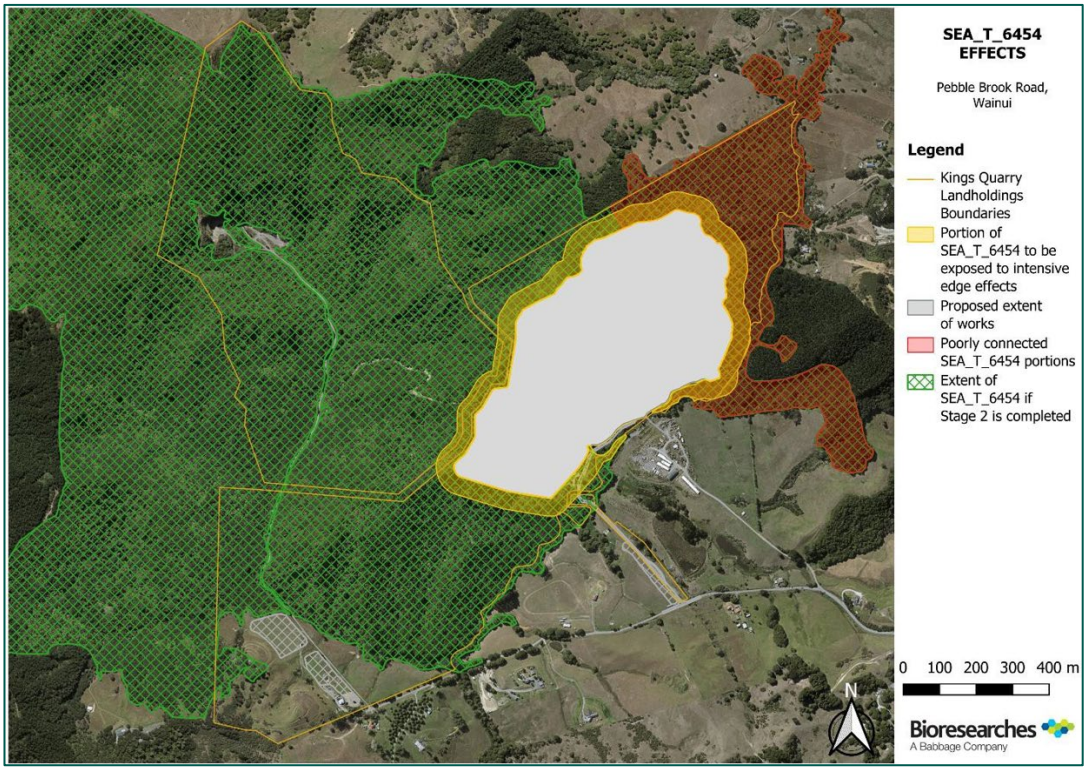

Figure 26: Edge effects anticipated by the Project. Source: Appendix 9.

In terms of habitat loss, effects are considered high with no fauna management in place given the loss of foraging, roosting and community habitats that may be used by bats or localised high densities of native lizards likely resulting in either direct mortality, injury and or displacement of fauna. Further, populations or large portions of populations of threatened and at-risk species present within the Site will be lost. It is important to note that vegetation loss will not be permanent as it is proposed that the Stage 2 footprint will be progressively replanted with native vegetation as discussed in section 6.2.4 of this report. At no time will the Project area be completely devoid of vegetation and there will always be vegetated corridors linking to existing vegetation outside the quarry footprint. Overall, while an open quarry pit would represent a different environment, the proposed remediation is expected to reduce potential effects on fauna.

In order to mitigate adverse effects as a result of the Project, a comprehensive EMP has been prepared to support the proposal (refer Appendix 19). The following plans are included within the document:

- Vegetation Removal Management Plan;
- Avifauna Management Plan;
- Bat Management Plan;
- Lizard and Invertebrate Management Plan;
- Kauri Dieback Management Plan;
- Threatened Plant Management Plan;
- Edge Effects and Buffer Management Plan; and
- Pest Animal Management Plan.

Additionally, progressive rehabilitation of the Site will be facilitated through the implementation of the Remediation Planting Plan (refer **Appendix 20**).

Although management plans will be in place to mitigate adverse effects and native replanting is proposed to remedy adverse effects, given the high ecological value of habitat to be removed and consequently the potential loss of invertebrates, lizards, birds and bats including threatened and at-risk plants species, Bioresearches has concluded this would represent a 'nil to moderate' level of residual effects following the implementation of management plans and remediation planting. These are summarised as follows:

- VS2 vegetation – moderate;
- VS5 vegetation – moderate;
- WF11 vegetation – moderate;
- At Risk plants – low;
- Invertebrates – very low;
- Frogs – nil;
- Lizards – low (temporary);
- Birds – low (temporary); and
- Bats – low (with some uncertainty).

Under the EcIA Guidelines for use in New Zealand published by the Environmental Institute of Australia and New Zealand (EIANZ)[4], it is generally accepted that if, after all efforts to avoid, remedy, mitigate and minimise effects, there remains an effect of moderate or higher, further efforts are required to address these residual effects in the form of offset or compensation. As addressed in the EcIA, the removal of VS2, VS5 and WF11 vegetation will have moderate residual adverse effects. In this regard, Bioresearches have prepared a Residual Effects Analysis Report – Terrestrial ("REAR-T") (attached as **Appendix 18**) that sets out the offset and compensation actions. In summary, it is proposed to:

- It is proposed to construct a predator-proof fence at the Oldfields Road site, encompassing 60 ha;
- The remaining existing vegetation outside the predator-proof fence (57.52 ha) will have pest browser species controlled;
- A total of 61.8 ha of revegetation is proposed. It will be first allocated to within the predator proof fence (29.18 ha), with surplus planting occurring outside the fence (32.63 ha);
- All existing vegetation (88.28 ha), both within and outside the fence, will be provided with enrichment planting of key plant species, allowing improvements in forest succession processes; and
- Additional weed control will be provided throughout the site as required.

Specific details of the revegetation and enhancement, pest animal control, and offset/compensation monitoring (i.e. Biodiversity Outcome Monitoring Plan) at the Oldfield Road

[4] https://www.eianz.org/document/item/4447

offset site is addressed within the REMP included as **Appendix 24**. The REMP details how the net gains, as modelled in the REAR-T, would be achieved through offsite management actions.

Overall, the proposed offset and compensation actions ensure a biodiversity 'net gain'.

9.2.2 Freshwater Ecological Values

The potential effects on freshwater ecological values include loss or degradation of freshwater habitats, death and injury to freshwater fauna and potential release of sediments into the receiving environment. In this case, it is proposed to remove 1,609m of natural intermittent stream, 238m of modified intermittent stream, and 280m of permanent stream, which results in the total reclamation of 2,439m of stream and 1,119m^2 of reclaimed aquatic habitat.

In order to minimise adverse effects on freshwater fauna, implementation of native fish recovery protocols through the implementation of Native Freshwater Fish Relocation Plan is proposed. With respect to sediments potential entering streams that will not be reclaimed as part of this Project, an Erosion and Sediment Control Plan (ESCP) has been prepared and will be implemented throughout the lifetime of the quarry to minimise potential release of sediments into the receiving environment. Given the very high ecological value of the receiving environment, an Adaptive Management Plan (AMP) will also be implemented. Overall, following the implementation of native fish recovery protocols, ESCP and AMP, adverse effects on fish injury or mortality and sedimentation is considered 'low'.

Potential effects on downstream hydrology have been assessed by Williamson Water and Land Advisory (WWLA). WWLA have assessed that the maximum baseflow depletion predicted for the Waitoki Stream during low flow conditions is 1.3 L/s (refer **Appendix 32**), amounting to 10.3% of MALF which is within the AUP allocation limit. Having regard to this, it is considered that the any potential adverse effects on downstream hydrology could be managed by way of conditions. The proposed draft conditions (refer **Appendix 25**) require monitoring of water quality, depth and flow. The Monitoring and Contingency Plan required to be certified prior to dewatering will include trigger levels and contingency actions in the unlikely event that adverse effects attributable to the quarry activity are detected.

The loss of 2,439m of stream of low to very high ecological value is considered to have a 'moderate' to 'very high' level of effect due to the complete loss of freshwater habitat which are permanent and irreversible. Where stream reclamation cannot be mitigated, residual adverse effects on streams will need to be offset or compensated. In this regard, Bioresearches has prepared a Residual Effects Analysis – Freshwater ("REAR-F") that sets out the offset and compensation actions. In summary, it is proposed to:

- Carry out a total of 2,893 linear metres of stream restoration through riparian planting and the removal of barriers to fish passage to offset the loss of stream value; and
- As the loss of stream extent cannot be reasonably offset, the loss of stream extent is proposed to be compensated for through wetland restoration. As such, it is proposed to restore 6,400m^2 of degraded wetland habitat through 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. 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.

Specific details of the riparian and wetland planting at Oldfield Road and Hellyer Road offset site, including pest animal control and monitoring targets, are addressed in the REMP included as **Appendix 24**. The REMP details how the net gains, as modelled in the REAR-F, would be achieved through offsite management actions.

Overall, the proposed offset and compensation actions ensure a biodiversity 'net gain'.

9.2.3 Summary

Overall, the conclusions in the EIA, even with the appropriate mitigation in place, the effects on terrestrial and freshwater ecological values arising from the Project are considered to be 'moderate' (terrestrial ecology) to 'very high' (freshwater ecology), such that effects on ecological values overall are considered to be more than minor. Any residual adverse effects that cannot be avoided, remedied or mitigated will be offset and compensated for as discussed above. It is anticipated that a biodiversity 'net gain' should occur following the completion of all offset and compensation actions.

9.3 Archaeological Values

An Archaeological Assessment has been prepared by CFG Heritage Ltd and included as **Appendix 10**. New Zealand Archaeological Association (NZAA) has a record relating to an archaeological site (R10/918) on the site which relates to two pit sites. The archaeological site is located on a high spur above the Waitoki Stream, outside the Project area. Based on field surveys undertaken by CFG Heritage Ltd, no further archaeological features or deposits were noted within the Site. Further, CFG Heritage Ltd concludes that an authority to modify under section 44 of the Heritage New Zealand Pouhere Taonga Act 2014 is not required to be applied for.

Based on the assessment and conclusions in the Archaeological Assessment, and provided that all works are undertaken utilising Accidental Discovery Protocol, the potential adverse effects on archaeological values are considered to be less than minor.

9.4 Transportation

Commute Transportation Consultants has prepared a Traffic Assessment Report (**Appendix 16**). As a result of the increased volume of extraction proposed, there will be a minor increase in the anticipated traffic movements above what is consented under the Stage 1 consent. Stage 1 consent was approved to have a maximum daily truck volume of 100 truck movements per day and a maximum hourly truck volume of 10 truck movements per hour. It is now proposed to increase this by up to 3 trucks (6 truck movements per hour) which translates to a peak of 90 trucks per day (180 truck movements per day) and approximately 8 trucks per hour (16 truck movements).

Commute notes that "*Given that Pebble Brook Road will be upgraded as part of Stage 1 to provide simultaneous truck movement along its length (between its eastern termination and the site access), and the Pebble Brook Road / Waitoki Road intersection will be upgraded as detailed previously, no further upgrades to the existing local network or intersections are considered necessary. The minor increase in volumes is considered to be suitably accommodated by the local road network.*"

The assessment of increased traffic movements can be summarised as follows:

- *The quarry activity is not expected to exacerbate the safety record within the area (subject to the recommendations detailed below);*
- *The minor increase in traffic generation as a result of the Stage 2 quarry (over that considered for Stage 1) is considered to have a minimal effect on the surrounding road network;*
- *The proposed access point satisfies relevant sight distance requirements;*
- *The Waitoki Road / Pebble Brook Road intersection satisfies SISD requirements for trucks for a 70km/h speed limit; and*
- *The surrounding road network is designed to accommodate trucks and have sufficient capacity to accommodate the additional truck movements.*

It is recommended that:

- *The existing speed limits on Waitoki Road should remain, however the change to 60km/h should be relocated to 150m west of the Pebble Brook Road intersection (location as per previous Stage 1 TAR); and*
- *The Stage 1 consented road upgrades are implemented before Stage 2 commences. As noted above, these upgrades are expected to be completed imminently.*

Based on the assessment and conclusions within the Transport Assessment including its recommendations which form part of the draft conditions of consent, it is considered that any adverse effects with respect to transportation will be appropriately mitigated and considered to be less than minor.

9.5 Dust

The extraction, processing, cartage and stockpile of aggregate will inevitably generate some dust. This is recognised in the AUP(OP) Special Quarry Zone provisions. The provisions seek to ensure that these effects are "managed" rather than avoided.

The aggregate being extracted from Kings Quarry is alluvial and hence is composed of pebbles held together with sand like fines. In this regard, quarry operations associated with Kings Quarry differ from a typical quarry in the Auckland region due to the need to crush only a small proportion (approximately 15%) of extracted rock. The typical aggregate that is found at Kings Quarry is identified in Figure 27.

Figure 27: Typical aggregate at Kings Quarry. Source: Appendix 33.

An Assessment on Discharge of Contaminants into Air has been prepared by Air Matters Limited and is included as Appendix 33. By way of summary, Air Matters Limited make the following comments:

- *Most of the dust generated on site is larger than PM_{10} (particulate less than 10 microns in diameter) and considered total suspended particulate (TSP), which primarily has the effect of nuisance rather than chronic adverse health effects associated with the smaller particulate sizes. Regardless, implementing appropriate controls will avoid and minimise the release of both fine (PM_{10}) and coarser dust.*
- *The windrose created shows that the prevailing wind direction across these three years is generally from the south-west direction, as is typical for Auckland. Other slightly less common wind directions are from the north-east and north-west. This information indicates that the dwellings on Haruru Road to the north-east of the site have greatest likelihood of frequent dust effects also due to their proximity to quarrying activities. The dwellings at the end of Pebble -Brook Road could be impacted less frequently due to the lower proportion of north-east winds and greater distance from quarry activities.*
- *Regardless of distance and prevailing wind directions, good dust management practices are needed to ensure that the potential for wind driven 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. Section 6 of the report details the site processes associated with the mitigation of dust emissions.*
- *In addition to the dust management procedures, this quarry will not have the same potential intensity 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 product. These processes will produce far less airborne dust versus crushing. The onsite roadways are also wetted naturally from the abundance of moisture in the ground which will assist in the reduction of traffic generated dust.

The Project will operate under a Dust Management Plan ("DMP") (attached as Appendix 28). The DMP sets out the source of dust, mitigation methods, monitoring methods, responsible people, complaint management and record keeping. This document is reviewed annually or as required to ensure is it relevant and usable. The DMP is intended to be a 'live document', providing the opportunity to adapt to any evolving best practice procedures.

Dust mitigation controls outlined in the DMP include:

- Unsealed road surfaces within the Site will be wetted down with a water truck during dry windy periods (typically November to April). It is noted within the Groundwater Effects Assessment prepared by WWLA that the site groundwater diversion and storage ponds is sufficient to meet these requirements;
- Limit the height and slope of stockpiles to less than 5m;
- Limit vehicle speeds on unsealed surfaces to 15km/hr;
- Cover loads of fine materials;
- Wind speed monitoring; and
- Real time dust monitoring.

In terms of potential dust nuisance associated with traffic on Pebble Brook Road, the following is noted:

- Pebble Brook Road is a local rural access road which connects to Waitoki Road to the south and terminates at the access to the site at 306 Pebble Brook Road. It is not a through road and from a review of aerial maps (CoreLogic Emaps), it provides access to approximately 35 properties including the quarry site.
- The properties with frontage to the unsealed portion of Pebble Brook Road (up to the quarry access) are set back from the road boundary by approximately 20m and the majority of these properties are screened from the road by vegetation and are elevated above the road. This distance, elevation and screening including the covering of material transported off site, will mitigate potential dust nuisance to these properties.
- As discussed in the DMP, the material loaded on trucks will be covered to prevent dust nuisance and load sizes will be limited to avoid spillages.

A review condition under s128 of the RMA for the air discharge consent is offered which will allow any future unanticipated issues associated with dust emissions to be addressed.

When having regard to separation distances to sensitive receivers and subject to the implementation of the DMP, it is considered that any adverse dust effects will be appropriately mitigated and considered to be less than minor.

9.6 Landscape and Visual

The majority of the Kings Quarry Landholdings (except one lot) is zoned Special Purpose – Quarry under the AUP(OP). Mineral extraction activities are clearly contemplated under the planning framework of the AUP(OP). While it is acknowledged that the Project will significantly change the physical locality of the Site, in our view, it is important that the landscape and visual effects of the Project are considered *in context*. This context includes:

- The existing environment which includes activities permitted in the AUP(OP), operative planning provisions and approved but unimplemented resource consents that are likely to be implemented; and
- The statutory framework of the AUP(OP), which includes the Quarry zoning (including the Quarry Buffer overlay).

In our view, some physical and visual change, and a departure from the current rural country hill character, must be expected, given the Quarry zoning of the Site. However, these effects will need to be mitigated to the extent that they are not significant. In addition, the existing environment is already in process of change and transition with the commencement of Stage 1 works.

In the planning context, the Site is not located within any of Outstanding Natural Feature or Character overlays of the AUP(OP), and it is not identified as a High Natural Character site, either. Part of the Site at the recently formed accessway is subject to the Outstanding Natural Landscape (ONL) overlay, however no works are proposed in this area as part of this Project. The remainder of the Site is not subject to the ONL. Almost the entire Kings Property landholdings however is subject to a Significant Ecological Area. Overall, the landscape can be summarised as forested hill country with a mixture of rural living, rural industrial uses and an operating quarry.

With respect to the continued use of the existing accessway, this portion of the Site subject to the ONL is an access allotment and previously provided an access to the quarry. This was upgraded as part of Stage 1 consent into a formed accessway including the construction of the weigh bridge, control room and office. Further, the continued use of the accessway will not result in any additional footprint beyond what is already modified such that it is considered that the natural characteristics and qualities of the area will not be undermined and the value of the ONL will be maintained. Overall, it is considered that the continued use of this accessway as part of Stage 2 will not detract from the surrounding existing character and landscape.

Helen Mellsop Landscape Architects has undertaken a Landscape and Visual Assessment of the Proposal, and is included in Appendix 34 and Appendix 35. A summary of the key findings is provided below:

- The landform pattern of the ridgeline and ridge slopes within B-Pit and the stream gully within A-Pit will be permanently altered, but a lower vegetated ridgeline would be retained and the highest point of Te Rite-a-Kawharu would be unaffected;
- The proposed vegetation removal to facilitate quarry activities would reduce the ecological values and perceived naturalness of the landscape, but remediation planting and the staged vegetation removal would largely mitigate these adverse effects;
- The closer visual catchment of the Project is relatively confined, as views to the majority of the Site are enclosed within Pebble Brook Road valley. Upper benches of the quarry will be visible from Waitoki Road and some adjoining properties, and both the A-Pit and upper

benches of the quarry would be visible form a stretch of Haruru Road and the surrounding area;

- The closest dwellings to the Project area that would have views of the quarry are those at 162, 175, 220 Pebble Brook Road and 778 and 782 Haruru Road. 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; and
- The dwelling at 778 Haruru Road and from the driveway at 782 Haruru Road, given its proximity to the Project area (approximately 380m) will have direct views of A-Pit for the first 15 years. Retained vegetation lower in the gully and progressive revegetation would provide screening over time and would mitigate these adverse effects.

Overall, Hellen Mellsop Landscape Architects make the following conclusions:

"The Proposal would substantially and permanently alter the project area in a way that is anticipated by the AUP Quarry zoning. The mineral extraction works would have a relatively confined visual catchment, with closer views being limited to Pebble Brook and Haruru roads and adjoining properties. Adverse visual effects would be moderate in extent from part of Haruru Road and some adjoining properties for the first 15 years, but would otherwise be very low to low-moderate in extent from other vantage points and in other time periods. Remediation planting of overburden fill and quarry benches would effectively mitigate adverse visual effects as it matures.

Expansion of quarrying over a 45-year period would inevitably have adverse effects on the valued physical, associative and perceptual attributes of the wider landscape, but these would be low-moderate in extent. The naturalness of the landscape would be largely restored by proposed remediation planting and off-setting, and rural character and amenity would not be affected outside the Pebble Brook Road Quarry Buffer Area and a confined area on Haruru Road. While the landform of the distinctive ridge within the site would be modified, a lower vegetated ridgeline would be created and the summit of Te Rite-a-Kawharu would be unaffected.

Overall there would be no significant adverse effects on visual and landscape values."

For the first 15 years, adverse effects on a portion of Haruru Road, parts of the property at 782 Haruru Road and 778 Haruru Road are considered 'moderate' which equates to 'more than minor'. From other identified view points and in other time periods, adverse effects are otherwise considered 'very low' to 'low-moderate' which equates to 'less than minor' and 'minor'. As a whole and on balance, however, and having regard to the *context* in which quarry activities are contemplated within the Special Purpose – Quarry Zone, and that visual effects are temporary in nature and experienced by a relatively small audience, it is considered that adverse landscape and visual effects will be appropriately mitigated to be minor overall.

9.7 Hydrology and Groundwater

WWLA has prepared a Groundwater Model Analysis Report and is included as **Appendix 32.** The controls in the AUP(OP) recognise that groundwater diversion has the potential to impact groundwater regimes, surface water bodies, neighbouring structures and services and on people and communities.

The groundwater effects anticipated as a result of the Project on the local groundwater system have been modelled and the following key conclusions are made:

- *Drawdown outside of the excavation area is limited to 7 m, at a maximum, which occurs directly north of the completed quarry.*
- *The extent of drawdown is constrained by surrounding streams that control groundwater elevation. This is largely by design as the quarry is designed to not extend vertically below the Waitoki Stream channel to avoid stream depletion.*
- *Proposed water quality monitoring of an on-site storage pond is recommended as a consent condition. If blast chemicals are detected in excess of trigger levels (to be determined), then further sampling of the Waitoki Stream and nearby farm bore should be undertaken. If adverse effects are detected on either, appropriate mitigation measures should be implemented in accordance with Consent Conditions.*
- *No bores are within the area affected by drawdown.*
- *The maximum baseflow depletion across the Waitoki Stream catchment is 2.0 L/s during high-flow conditions. During low flow conditions, when the stream is most sensitive to depletion, the maximum depletion rate is 1.3 L/s, approximately 10% of MALF.*
- *There is one wetland in the catchment, but it is outside of the envelope of effects because is on the opposite side of the Waitoki Stream from the quarry.*
- *There is predicted to be limited groundwater seepage into the quarry (~0.5 L/s) until 40 years into the excavation period when a larger portion of aquifer material is excavated. At this point there is a brief spike to 6.0 L/s, which drops to a more consistent rate of 2-2.5 L/s thereafter.*
- *AUP criteria indicates that the proposed quarry development is a Restricted Discretionary Activity, hence a consent is required. A review of applicable matters of discretion indicates that there are no major issues related to groundwater effects from the proposal.*

Based on the assessments and conclusions provided by WWLA, the potential adverse effects on groundwater and groundwater related features within the Waitoki catchment are considered to be minor. In terms of any settlement effects associated with the groundwater drawdown on neighbouring buildings, structures and infrastructure, this is considered to be less than minor given the underlying geology of the Site and surrounding sites which consists of Albany Conglomerate which is effectively non-compressible.

In addition to the conclusions made by WWLA the following comments are made in relation to the proposed groundwater diversion:

- The proposed groundwater dewatering and diversion is required to facilitate the extraction of aggregate material within a suitably zoned Special Purpose - Quarry Zone;
- Monitoring and reporting conditions of consent are offered within Appendix 25, with a report containing all monitoring data required by the conditions of consent to be submitted to the Council at quarterly intervals;
- A condition of consent is offered to allow Council to review the conditions of this consent at the consent holder's cost, one year after quarrying commences, and every 5 years subsequently in order in accordance with section 128 of the RMA; and
- A Monitoring and Contingency Plan ('MCP') is offered as a condition of consent. The MCP will include, at a minimum, include the following information:

- A monitoring location plan showing the location and type of all monitoring;
- Final completed schedules B to E for the groundwater, ground surface, building, retaining wall, inclinometer and deformation monitoring programme;
- All monitoring data, the identification of Services susceptible to Damage and all building/service condition surveys undertaken to date;
- A bar chart showing the timing and frequency of condition surveys, visual inspections and all other monitoring required by this consent, and a sample report template for the required 2 monthly monitoring;
- All Alert and Alarm Level triggers; and
- Details of the contingency actions to be implemented if Alert or Alarm Levels are exceeded.

Taking into account the conclusions made by WWLA, that the purpose of the groundwater dewatering and diversion is to facilitate mineral extraction within a Special Purpose - Quarry Zone, and the proposed conditions of consent it, it is considered that any adverse effects associated with hydrology and groundwater will be less than minor.

9.8 Land Disturbance

It is proposed to install a range of erosion and sediment control measures throughout the quarry lifetime. An Erosion and Sediment Control Report has been prepared by LDE and is included in Appendix 14.

As described above, the Proposal includes the removal of material, stockpiling for rehabilitation works on the quarry benches, and any overburden will be placed into the A-Pit once this area has been established. Excavated rock will be transported along the haul road, to the fixed plant located in the middle of the existing quarry floor.

The proposed measures for erosion and sediment control have been designed in accordance with the guidelines prescribed in Guideline Document 2016/005 'Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region' (GD05). Key elements include the following:

- A stabilised construction access at the base of the existing quarry as well as at the base of the track to the top of the quarry, these will be constructed of 150mm of aggregate;
- Eight sediment retention ponds ("SRP") for the fill site, B-Pit and haul roads, to be proposed in accordance with the quarry staging. There will be a maximum of six SRPs operating concurrently during quarrying activities
- No bunding between the catchments is proposed in the early years of the quarry, due to the large amount of vegetation remaining at this time;
- Chemical treatment is proposed for the SRPs and a ChTMP will be submitted to Council for certification which has been included as a condition of consent.
- Standard construction operations will be carried out, including inspections, cleaning of SRPs, appropriate sediment disposal; and
- The use of diversion bunds and silt fences will help to reduce the stormwater run-off from entering the SRPs and in places where a SRP will be difficult to establish.

Given the very high ecological value of the receiving environment, an Adaptive Management Plan (AMP) will also be implemented.

On the basis of the above and noting that best practicable erosion and sediment control measures will be implemented on 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.

9.9 Geotechnical and Site Stability

CMW has carried out geotechnical investigations, and their report and recommendations are included as **Appendix 29.** The geotechnical report provides an analysis for the key geohazards associated with the Proposal, and a slope stability assessment for the quarry design.

Based on their investigations carried out and provided that the geotechnical design recommendations are adhered to, CMW considers that the Site is unlikely to be affected by slope instability. Additionally, the quarrying of the land is unlikely to accelerate, worsen or result in material damage to the land and surrounding land (including buildings and structures) provided that the geotechnical recommendations and proper engineering practices are followed during land disturbance associated with the quarry activity.

Overall, in reliance on this advice received by CMW and provided that the recommendations are adhered to, it is considered that any adverse land instability effects will be avoided or mitigated to be less than minor. Furthermore, there are no significant geotechnical constraints that would preclude the proposed quarry activities.

9.10 Noise

Potential adverse effects associated with quarrying activities have been considered in the Acoustic Assessment prepared by Hegley Acoustics (refer **Appendix 36**). The principal sources of noise with the Proposal include the operation of a plant, quarrying of rock including blasting, clearing of the overburden and road traffic noise from trucks.

The acoustic report provides noise level predictions of all activities occurring on site, including at worst possible scenarios when all plant and machinery are operating at any one time. In summary, Hegley Acoustics conclude that the proposed quarry activities can comply at all times with noise limits at all sensitive receivers with the exception of 782 Haruru Road where there is a possibility of non-compliance when all plants are operating at once. In order to ensure compliance with the noise limits for 782 Haruru Road, it is proposed to limit the plant that can operate in the most exposed location for this property. It is recommended that the rock drill cannot work at the same time as the excavator and crusher within the mitigation zone as identified in **Figure 28** until all plant has dug itself into the site enough that the quarry edge breaks the line of sight between the plant and 782 Haruru Road.

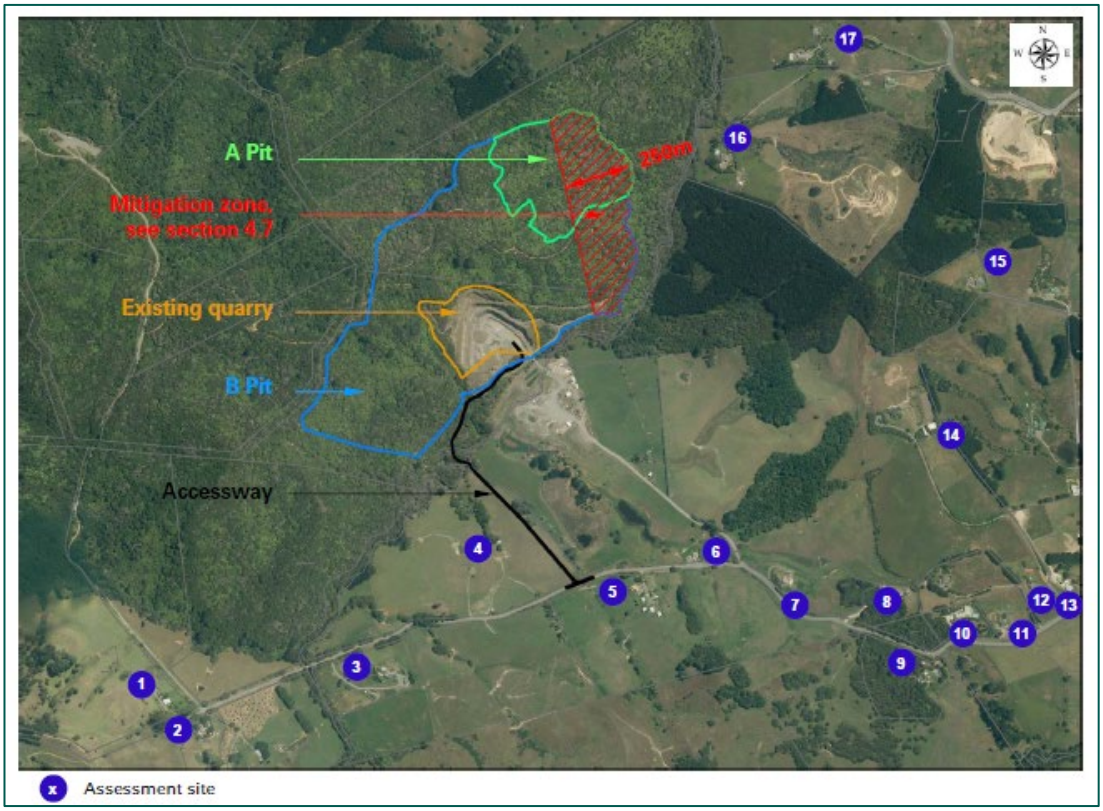

Figure 28: Mitigation zone. Source: Appendix 36.

Blasting effects associated with the quarrying are typically managed through the size and method of blasting. Given the nearest sensitive receiver is over 200m from the proposed blasting, blasting management can reasonably be expected to control the effects to be well within the AUP(OP) 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 noise limits imposed by the AUP(OP).

In summary, Hegley Acoustics conclude that the proposed quarry activities can comply at all times with the noise limits at all sensitive receivers provided the following and subject to the implementation of a noise and vibration management plan:

- *When activities are within 250m of the eastern extent of the quarry:*
    - *The rock drill cannot work at the same time as the excavator and crusher until all plant has dug itself into the site enough that the quarry edge breaks the line of sight between the plant and Site 16; and*
    - *Trucks cannot be loaded out prior to 7.00am until the loader can operate from a position that does not have line of site to Site 16.*
- *Activities prior to 7.00am shall be limited to two return truck movements to site for loading out with aggregate;*
- *During day time hours (7.00am – 9.00pm Monday to Friday and 7.00am to 4.00pm Saturday), trucks exporting aggregate from site will be limited to 94 return visits; and*

- *If audible reversing warning signals are necessary, site plant will use broadband reversing alarms.*

We confirm that the recommendations form part of the Proposal and have been incorporated in the proposed conditions consent. Additionally, as per the recommendations made by Hegley Acoustics the noise management conditions from the Stage 1 Consent have been included at Appendix 25. Having regard to the above, it is considered that the potential noise as a result of the quarrying activities on site will be appropriately mitigated and considered to be less than minor.

9.11 Cultural Values

In a planning context, there are no sites or places of significance to mana whenua within or surrounding the Project area. Notwithstanding, the iwi consultation schedule included within Appendix 7 sets out the consultation results and feedback provided from relevant iwi authorities. It is noted that the relevant iwi authorities have been involved with the Project through consultation during Stage 1, the referral process and substantive application (as it related to the previous Covid-19 Fast-track application) and subsequently, for this application. Based on the feedback received, as set out in Appendix 7, adverse effects on cultural values are likely to be less than minor, although consultation with iwi is ongoing throughout further stages of the Project. The responsibility for assessing impacts on cultural values ultimately lies with iwi as mana whenua of this area.

9.12 Climate Change and Natural Hazards

The Project is not one which is inherently vulnerable to natural hazards and climate change, comprising no sensitive or vulnerable activities such as dwellings. The Project area is not subject to any flood plains. As the extent of the quarry footprint is generally remote from the parcel boundaries it is not anticipated that the overland flow paths on site will be altered at the boundary points, and the same entry and exit point will be maintained. Further, the detailed calculations and flow allowances within LDE's Erosion and Sediment Control Report as it relates to the SRPs allow for the governing rainfall event (5% AEP) including allowance for future climate change. Potential adverse land instability effects are addressed in section 9.9 above.

Additionally, as noted above, the Project could result in a reduction of 12,551 tonnes of CO2 equivalent greenhouse gas emissions annually through transport-related savings, which will positively contribute towards addressing climate change.

9.13 Social Effects

Employment benefits are addressed in section 9.1 above.

It is acknowledged that this Proposal represents change to the current community however these are already anticipated and addressed through the Special Purpose – Quarry zoning of the site. Potential effects relating to landscape and visual, and amenity will be addressed through mitigation proposed in relation to those matters assessed in this section (refer to assessment in sections 9.4 to 9.10).

9.14 Economic Effects

Economic benefits are addressed in section 9.1 above. It is not anticipated that there are any economic adverse effects associated with this Proposal.

9.15 Summary of Effects

The above assessment identifies the potential and actual effects on the environment relating to the Proposal. Subject to the imposition of conditions, all effects (apart from ecological values) from the Project will be avoided, remedied or mitigated to an acceptable level. Where residual adverse effects cannot be avoided, remedied or mitigated as is the case for ecological values, biodiversity offsetting and compensation is provided to ensure biodiversity 'net gain' can be achieved.

10.0 Assessment of Relevant Statutory Considerations

This section of the application is provided in accordance with clauses 5(1)(h), 5(2) and 5(3) of Schedule 5 of the Act. The Act requires that applications must include an assessment of the activity against the relevant provisions and requirements of those documents listed in clause 5(2) being:

(a) a national environmental standard:

(b) other regulations made under the Resource Management Act 1991:

(c) a national policy statement:

(d) a New Zealand coastal policy statement:

(e) a regional policy statement or proposed regional policy statement:

(f) a plan or proposed plan; and

(g) a planning document recognised by a relevant iwi authority and lodged with a local authority.

10.1 Objectives and Policies Approach

A comprehensive assessment of all objectives and policies considered to be relevant to this proposal is provided within Appendix 37. Given the significant number of objectives and policies to be assessed, a summary of the key objectives and policies is provided in the sections that follow.

10.2 National Environmental Standards

This section of the application is provided in accordance with Clause 5(2)(a) of schedule 5.

10.2.1 National Environmental Standard for Freshwater 2020

Resource consents required under the NES-F have been set out in Section 7.2.

The intent of the NES-F is to set out requirements for carrying out certain activities that pose risks to freshwater and freshwater ecosystems. It seeks to:

- Protect existing inland and coastal wetlands;
- Protect urban and rural streams from in-filling;

- Ensure connectivity of fish habitat (fish passage);
- Set minimum requirements for feedlots and other stockholding areas;
- Improve poor practice intensive winter grazing of forage crops;
- Restrict further agricultural intensification until the end of 2024; and
- Limit the discharge of synthetic nitrogen fertiliser to land, and require reporting of fertiliser use.

As the wider Kings Quarry property is scattered with many watercourses, avoidance of streams was not feasible, however, the pit design avoids permanent streams to the greatest extent possible. The reclamation of 2,439m of stream of very high to low ecological value is considered to have a 'very high' level of effect due to the complete loss of freshwater habitat which is permanent. Stream reclamation cannot be mitigated and residual adverse effects on streams will need to be offset or compensated. In this regard, Bioresearches has prepared a REAR-F (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. In summary, 2,893 linear metres of stream located on the Oldfield Road offset site, Hellyer Road offset site and on the Site, will be enhanced with 10m of riparian planting including the removal of fish barriers providing for improved connectivity of freshwater fauna habitat. In addition, 6,400m^2 of wetland restoration will be undertaken at the Oldfield Road offset site. Overall, Bioresearches conclude that "*the restoration and enhancement of degraded aquatic habitats will provide for a positive aquatic ecological benefit, biodiversity gains and restore connectivity to existing habitats*."

Based on the above, the Project is considered to meet the intent of the NES-F.

10.2.2 Other National Environmental Standards

The Proposal does not require resource consent under any of the other National Environmental Standards (listed in Section 8.3), and therefore an assessment against the intent of these is not required.

10.3 Other Regulations Made Under the Resource Management Act 1991

This section of the application is provided in accordance with Clause 5(2)(b) of schedule 5.

The Proposal does not require resource consent under any other regulations made under the Resource Management Act 1991, and therefore an assessment against the intent of these is not required.

10.4 National Policy Statements

This section of the application is provided in accordance with Clause 5(2)(c) of schedule 5.

10.4.1 National Policy Statement on Freshwater Management 2020 (NPS-FM)

The NPS-FM requirements include:

- Managing freshwater in a way that 'gives effect' to Te Mana o Te Wai;
- Improving degraded water bodies, and maintaining or improving all others; and

- Avoiding any further loss or degradation of wetlands and streams, map existing wetlands, and encourage their restoration.

It is considered that the Project accords with the NPS-FM objectives and policies for the following reasons:

- The Proposal is considered to manage natural and physical resources in a way which aligns with the objective (Objective 1) of the NPS-FM. The protection and enhancement of the health and well-being water bodies, streams and freshwater ecosystems has been considered through the design of the quarry. As the wider Kings Quarry property is scattered with many watercourses, avoidance of streams was not feasible, however, the pit design avoids permanent streams to the greatest extents possible. The proposed removal of the weir from Waitoki Stream will improve fish passage. The effects management hierarchy contained within the NPS-FM outlines the required management approach for managing adverse effects of activities. As there is a loss of a portion of stream within the Site which cannot be avoided, remedied or mitigated, offsetting and compensation is the appropriate management approach in order to ensure biodiversity 'net gain';
- With regards to Policies 1 and 2 in relation to Te Mana o te Wai and tangata whenua involvement, as summarised in Section 7.0 of the AEE and Appendix 7, the applicant has undertaken a number of hui specifically in relation to this proposal. Discussions at the hui have focussed on freshwater values, streamworks, proposed reclamation and stormwater management principles. The applicant has taken on board feedback from tangata whenua into the Proposal;
- Although the Project will result in loss of 2,439m of stream of very high to low ecological value, it is proposed to provide aquatic offsetting and compensation through the restoration of 2,893 linear metres of stream, 6,400m^2 of wetland restoration and removal of the weir. 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. 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 under the AUP(OP). In this regard, the intent of Policy 7 is met; and
- In terms of Policy 8, while there are currently minimal indigenous freshwater species present, the removal of the weir from Waitoki Stream will provide for the enhancement of indigenous freshwater species on the site.

10.4.2 National Policy Statement on Urban Development 2020 (NPS-UD)

The NPS-UD enables the development of land and infrastructure for urban land uses while recognising the national significance of well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing (Objective 1 and Policy 1). Part of well-functioning urban environments is providing housing choice.

Aggregate is a foundation product which is necessary for the development of buildings, roading and infrastructure. Increasing its supply and proximity to key growth areas will result in reduced costs for Auckland's construction sector and therefore reduce barriers to intensification and the development of well-functioning urban environments that have a variety of homes. It is therefore considered that the Project will contribute to the development of land and infrastructure for urban land uses and therefore is consistent with the NPS-UD.

10.4.3 National Policy Statement on Indigenous Biodiversity 2023 (NPS IB)

The NPS-IB concerns "SNA or significant natural areas" and "indigenous biodiversity", both of which are defined terms under the NPS. The objective of the NPS-IB is to maintain indigenous biodiversity across New Zealand so that there is no overall loss. The policies seek to restore and enhance ecosystems and habitats where necessary, and avoid adverse effects to SNAs.

In the context of the Project, the Site is subject to a SEA under the AUP(OP). Therefore, the provisions and relevant policies of the NPS-IB regarding SNAs are relevant to the consideration of this application.

However, aggregate extraction is subject to the following exception to the strict avoidance requirement under the NPS-IB under Clause 3.11(1):

> *(a) the new subdivision, use or development is required for the purposes of any of the following:*
>
> *[…]*
>
> *(iii) aggregate extraction that provides **significant national or regional public benefit** that could not otherwise be achieved using resources within New Zealand:*
>
> *[…]*
>
> *and*
>
> *(b) there is a **functional need or operational need** for the new subdivision, use or development to be in that particular location; and*
>
> *(c) there are **no practicable alternative locations** for the new subdivision, use or development.*

The exception allows the adverse effects on an SNA to be managed by applying the effects management hierarchy. If biodiversity offsetting or biodiversity compensation is applied, the principles for biodiversity offsetting as set out in Appendix 3 of the NPS-IB would need to be met.

Having regard to the above, the following assessment is provided:

Significant National or Regional Public Benefit

Kings Quarry is a regionally significant quarry. It is located north-west of Auckland's urban area and in close proximity to Future Urban areas such as Silverdale, Wainui, Dairy Flat, Kumeu-Huapai, Riverhead and Whenuapai, 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. As well as reduced transport effects, the Project is considered to have a number of significant national and regional public benefits, as follows:

- 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). 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 lower cost;
- In pure cost terms, the extension of Kings Quarry is expected to generate:

- Total value added to the economy of approximately $214.2M (undiscounted), with approximately $84.6m of this being direct impacts;
- Total construction aggregate transport cost savings of approximately $382M (mid-point) for Auckland's construction sector; and
- Total emissions cost savings of approximately $21.4m.

- A reduction of 12,551 tonnes of CO_2 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 CO_2 equivalent GHG emissions, using Ministry of Transport data from 2019 as a base year. For a single project, this is a significant benefit.

Functional Need

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.

No Practicable Alternative Location

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:

"As stated above, aggregate is a low value, high volume and high weight commodity. This means that it is not a commodity that can be economically transported long distances between source and final use. In general terms, a truck of aggregate doubles in cost approximately every 30km it travels. This means that it is not possible to move rock from distant locations to meet the needs of the Auckland market in any meaningful volumes. It is not the case that rock sourced in Northland or from the lower parts of Waikato Region or beyond are substitutes for Auckland sourced aggregates.

In reality, this means that even though the criteria in the National Policy Statement reads, "...could not be otherwise achieved using resources in New Zealand" [emphasis added], in reality the resources must be substitutable within the region (at most) for this to be a meaningful criteria.

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 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).

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."

Effects Management Hierarchy

The Project's approach to the effects management hierarchy is discussed in detail in the Residual Effects Analysis Reports (attached as Appendix 18 and Appendix 21) prepared by Bioresearches. The principles of biodiversity offsetting and compensation set out by the NPS-IB were taken into account as part of this assessment.

With regards to the effects management hierarchy, the following summary is provided:

(a) Adverse effects are avoided where practicable

At an early stage of the Project, the quarry was redesigned to avoid high value kauri podocarp forest. Further to this, through the design and technical input, further refinements in the design of the quarry involved moving the location of A-Pit from the north-eastern corner of the property boundary to immediately adjacent the B-pit to reduce further fragmentation of the SEA vegetation.

(b) Where adverse effects cannot be avoided, they are minimised where practicable

Several ecology management plans are proposed within the EMP (refer Appendix 19) as part of the Proposal in order to minimise adverse effects on high value flora and fauna (lizards, birds and long-tailed bats). These include:

- Vegetation Removal Management Plan;
- Avifauna Management Plan;
- Bat Management Plan;
- Lizard and Invertebrate Management Plan;
- Native Freshwater Fish Relocation Plan;
- Threatened Plant Management Plan;
- Kauri Dieback Management Plan;
- Edge Effects and Buffer Management Plan; and
- Mammalian Pest Control Plan.

(c) Where adverse effects cannot be minimised, they are remedied where practicable

As discussed in section 6.2.4 above, remediation of the A-Pit and Bit will be progressively undertaken, with a total of approximately 22ha of native planting being proposed. 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 are proposed to the base of the rock cuts to climb up the rock faces.

(d) Where more than minor residual adverse effects cannot be avoided, or remedied, biodiversity offsetting is provided where possible

Offsetting is feasible for the revegetation actions, but not for enhancement actions. Given the variability that occurred at the Oldfields Road restoration site, providing meaningful offset modelling for enhancement (pest/weed control) was not feasible. As such, a Biodiversity Offset Accounting Model (BOAM) models have been developed to determine the quantity of revegetation required for each of the three ecosystem types (VS2, VS5 and WF11), by

modelling DBH and bird abundance and diversity. The output of the BOAM models are also used to verify data input into compensation models where possible.

(e) Where biodiversity offsetting of more than minor residual adverse effects is not possible, biodiversity compensation is provided

A Biodiversity Compensation Model (BCM) is used to demonstrate confidence in quantified compensation actions, as well as net gain from a range of enhancement outcomes over various vegetation types and condition within adjacent vegetation and contiguous with the compensation site at Dome Valley (Oldfield Road). The BCM predicts a net compensation score of 28.45 and a 'net gain outcome' of 20.8% in biodiversity values. This score provides confidence that the proposed actions (predator-proof fence, forest enhancement and revegetation) will sufficiently counterbalance the significant residual adverse effects of the proposed vegetation loss associated with the Kings Quarry Stage 2 expansion.

A summary of the losses and modelled gains (revegetation and enhancement of existing adjacent ecosystems are summarised below:

Table 5: Summary of losses and modelled outputs to achieve Net Gain.

Ecosystem type	Loss (ha)	Offset/Compensation Actions			
		Revegetation (ha)	Pest-proof fence (ha)	Enrichment Planting (ha)	Weed/pest control
Kānuka scrub/forest (VS2)	19.75	46	60	88.28	57.52
Broadleaved species scrub/forest (VS5)	8.03	8			
Kauri, Podocarp Forest (WF11)	1.19	7			
Avifauna habitat	28.97	61			
Total	**28.97**	**61**	**60**	**88.28**	**57.52**

(f) If biodiversity compensation is not appropriate, the activity itself is avoided

N/A, biodiversity compensation has been provided.

Overall, Bioresearches conclude that a biodiversity 'net gain' should occur following the completion of compensation actions such as it is considered that the overall objective of the NPS-IB (to ensure there is no overall loss in indigenous biodiversity), is achieved.

10.4.4 Other National Policy Statements

The following comments are made in respect to other national policy statements:

- National Policy Statement for Renewable Energy Generation – this NPS provides guidance for local authorities on how renewable energy generation (including the construction, operation and maintenance of structures associated with renewable energy generation) should be dealt

with in RMA planning documents. The Proposal does not include the construction or operation of renewable energy generation structures or related activities. Therefore, an assessment of this NPS is not required.

- National Policy Statement on Electricity Generation – this NPS sets out the objectives and policies for managing the electricity transmission network. There are no electricity transmission lines or transmission network structures within the Site, and therefore an assessment of this NPS is not required.
- National Policy Statement on Highly Productive Land (NPSHPL) – this NPS sets out the objectives and policies for the protection of highly productive land for land-based primary production. The Site is zoned Special Purpose – Quarry and therefore the NPSHPL does not apply.

10.5 New Zealand Coastal Policy Statement

This section of the application is provided in accordance with Clause 5(2)(d) of schedule 5.

The NZCPS sets out a number of objectives and policies for achieving the purpose of the RMA in relation to the coastal environment of New Zealand. As the Site and Proposal is not located in or adjacent to the coastal environment, we consider that the NZCPS is not directly relevant to consideration of this application. Notwithstanding, appropriate control measures such as sediment retention ponds, divisions bunds, silt fence and chemical treatment have been adopted to ensure that the discharge to water have been undertaken in accordance with Policy 23 of the NZCPS and therefore any effects in relation to the coastal environment will be appropriately managed.

10.6 Auckland Unitary Plan (Operative in Part) 2016

This section of the application is provided in accordance with Clause 5(2)(e) and 5(2)(f) of schedule 5.

The AUP(OP) comprises Auckland's Regional Policy Statement (RPS), and regional and district plans. The AUP(OP) has a hierarchical policy framework with the regional policy statement at the top, then with regional and district plan provisions giving effect to the regional policy statement. Appendix 37 provides a detailed assessment of the proposal against all the objectives and policies of the AUP(OP).

A summary of the assessment of the proposal against the relevant objectives and policies of the AUP(OP) is provided below:

10.6.1 Regional Policy Statement

The RPS sets out the overall strategic statutory framework to achieve integrated management of the natural and physical resources of the Auckland Region. The RPS broadly gives effect to the strategic direction set out in the Auckland Plan. The Project has not been assessed against Chapters B2 Urban growth and form, B3 Infrastructure, transport and energy, B4 Natural heritage, B5 Historic heritage and special character, B8 Coastal environment, B9 Rural environment or B10 Environmental risk because these sections of the RPS are not applicable to the Proposal.

10.6.1.1 B6 Mana Whenua

The relevant objectives and policies of B6 seek to ensure that the principles of Te Tiriti o Waitangi are recognised and provided for in the sustainable management of natural resources. There is an

emphasis to provide opportunities for mana whenua to actively participate in the in the sustainable management of natural and physical resources, the mauri of and relationship of mana whenua with natural and physical resources is enhanced and the holistic nature of mana whenua world view is taken into account.

The Project is considered to be consistent with these policy directions, as the Proposal recognises the unique relationship between mana whenua and natural and physical resources. Consultation has been undertaken with mana whenua authorities who are generally supportive of the proposal and ongoing engagement and consultation will continue throughout the further stages of the Project.

10.6.1.2 B7.1 Natural Resources – Indigenous Biodiversity

The relevant objectives and policies of B7.1 seek to ensure that 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 not yet amended 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 Project 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 and in particular the exception applicable to aggregate extraction. This is addressed in further detail in section 10.4.3 of this report. Having regard to objective 2, the effects management hierarchy has therefore been applied to the Proposal and this is discussed in more detail in the REAR-T attached as Appendix 18. Specific details of the revegetation and enhancement, pest animal control, and offset/compensation monitoring (i.e. Biodiversity Outcome Monitoring Plan) at the Oldfield Road offset site is addressed within the REMP included as Appendix 24 to assess the level of offset and compensation actions required to ensure a biodiversity 'net gain'.

10.6.1.3 B7.3 Natural Resources – Freshwater Systems and B7.4 Coastal Water, Freshwater and Geothermal Water

The relevant objectives and policies of B7.3 seek to ensure that degraded freshwater systems are enhanced and the loss of freshwater systems is minimised. There is an emphasis to integrate the management of subdivision, use and development and freshwater systems, identify degraded freshwater systems and to avoid the permanent loss and significant modification of lakes, rivers, streams and wetlands unless no practicable alternatives exist or mitigation measures are implemented to address the adverse effects arising from the loss in freshwater system functions and values.

The relevant objectives and policies of B7.4 seek to ensure that the quality of freshwater and coastal water is maintained (where it is excellent or good) and progressively improved over time (where it is degraded). There is an emphasis to avoid, remedy or mitigate the adverse effects from changes or intensification of land uses on coastal water and freshwater quality.

It is considered that the Project is consistent with this policy direction. Although the Project will result in reclamation of 2,439 linear metres of low to very high value streams, it is proposed to provide aquatic offsetting and compensation. 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 – Zoning of the Site. To address any residual adverse effects associated with the loss of stream, the applicant proposes 2,893 meters of stream restoration through 10m riparian planting,6,400m^2 of degraded wetland habitat restoration and the removal of the weir which will ensure biodiversity 'net gain' is achieved.

Overall, when having regard to the zoning of the site and the extensive offsetting and compensation package proposed which will ensure a net biodiversity gain, noting the *East-West Link* decision and the associated policies contemplate off-setting, we consider that the proposal is consistent with the relevant objectives and policies.

10.6.1.4 B7.5 Quarry Natural Resources – Air

The relevant objectives and policies of B7.5 seek to ensure industry and infrastructure are enabled by providing reduced ambient air quality amenity in appropriate locations. There is an emphasis to avoid, remedy or mitigate adverse effects from discharges of contaminants to air for the purpose of protecting human health, property and environment.

It is considered that the Project is consistent with this policy direction. The Project will operate under a DMP which include 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 internal roadways are also wetted naturally from the abundance of moisture in the ground which will assist in the reduction of traffic generated dust.

10.6.1.5 B7.6 Natural Resources – Minerals

The main objective B7.6 seek to ensure that Auckland's mineral resources are effectively and efficiently used. The policies provide emphasis on the provision of mineral extraction activities within appropriate areas to ensure a secure supply of extractable minerals for Auckland's continuing development while ensuring significant adverse effects on the environment are avoided, remedied or mitigated.

The explanation in B7.7 is particularly relevant to this Project where it states:

Minerals are essential for Auckland's development. In the past, Auckland's quarries have produced nearly 10 million tonnes of aggregates per year. Currently a number of mineral extraction sites still operate in Auckland. Minerals are also imported from other parts of the country, particularly from the northern Waikato area.

The demand for minerals, particularly aggregates, is expected to increase to 15 million tonnes per annum by 2041. This will support growth and development, and renew and maintain buildings, roads and infrastructure.

Given the anticipated increases in demand for and Auckland's dependence on minerals, an accessible supply of minerals is a matter of regional importance. This means that the use of aggregate resources needs to be used as efficiency and effectively as possible.

Mineral extraction activities are encouraged to adopt best practice management of their sites to minimise adverse effects on both the natural environment and on the amenity values and quality of life of neighbouring land uses. Greater focus is also given to avoiding reverse sensitivity conflicts between mineral extraction sites and surrounding land uses and giving greater protection to the ongoing supply of minerals for Auckland.

The RPS recognises that a sustained supply of aggregate is necessary to provide for growth, and that existing quarries will need to expand, and new quarries and resources will need to be identified to ensure a secured supply of aggregate to meet demand for growth and development in the Auckland region.

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 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).

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.

Policy B7.6.2(4) requires mineral extraction activities to be established and operated in ways which avoid, remedy or mitigate significant adverse effects on the environment. As discussed in section 9.0 of this report 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. Where residual adverse effects cannot be avoided, remedied or mitigated as is the case with ecological values, it is proposed to provide a comprehensive biodiversity offsetting and compensation package to ensure biodiversity 'net gain' is achieved. While the RPS do not specifically contemplate offsetting and compensation, they are specifically

addressed through NPS-IB and other AUP(OP) provisions and these should therefore be read in conjunction.

Summary

Based on the foregoing, the Project is considered to be consistent with the policy direction of the RPS.

10.6.2 Regional and District Objectives and Policies

10.6.2.6 D9 – Significant Ecological Areas Overlay

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). The objectives and policies are contained in sections D9.2 and D9.3 of the AUP(OP) and aim to ensure that areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision, use and development; indigenous biodiversity values are enhanced; and the relationship of Mana Whenua and their customs and traditions with indigenous vegetation and fauna is recognised and provided for.

In our view, the main consideration of outcomes in this framework are D9.3(1) and D9.3(2) in relation to application of the effects management hierarchy.

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.

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 for. 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. It is also proposed to undertake extensive remediation planting from Year 1 of the quarry life.

To address any residual adverse effects, the applicant proposes predator-proof fencing, replanting, and enhancement options that can ensure biodiversity 'net gain' is achieved. This is discussed in more detail in the REAR-T and the REMP attached as Appendix 18 and addressed section 6.2.6 of the report.

It is therefore considered that the Project is generally consistent with these objectives and policies.

10.6.2.7 E2 – Water Quantity, Allocation and Use

The policy relating to groundwater that is considered to be relevant to this Proposal is set out in section E2.3(23) and is to require proposals to ensure that adverse effects are avoided, remedied and mitigated with respect to scheduled historic places and sites and places of significance to Mana Whenua; people and communities; flooding is not caused or exacerbated; monitoring is incorporated where appropriate; and mitigation is incorporated where appropriate.

Based on the assessments and conclusions provided by WWLA, the potential adverse effects on groundwater and groundwater related features within the Waitoki catchment are considered to be minor. It is not anticipated that the anticipated groundwater drawdown as a result of the quarry activities will affect groundwater aquifer availability as no other groundwater takes are within the

area affected by drawdown. It is also anticipated that the proposed quarry activities will not affect minimum flow requirements of rivers and streams. In terms of any settlement effects associated with the groundwater drawdown on neighbouring buildings, structures and infrastructure, this is considered to be less than minor given the underlying geology of the site and surrounding sites which consists of Albany Conglomerate which is effectively non-compressible.

Overall, it is considered that the Project is consistent with the relevant objectives and policies.

10.6.2.8 E3 – Lakes, Rivers, Streams and Wetlands

The provisions of E3 Lakes, rivers, streams and wetlands requires streams with high natural values to be protected from degradation and permanent loss. In the context of this application, the watercourses in this Proposal are considered to be of moderate to high ecological value.

In our view, the main consideration of outcomes in this framework are E3.2(6) in relation to avoiding the reclamation of a stream unless there is no practicable alternative; and E3.2(2) whereby Auckland's lakes, rivers, streams and wetlands are restored, maintained and enhanced. The policy framework on the matter of reclamation seeks that this is avoided unless there is no practicable alternative for undertaking the activity outside of the stream, it is part of an activity designed to restore or enhance natural values, and the activity avoids significant adverse effects on Mana Whenua values. We consider these provisions to be met for the following reasons:

- 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 not practicable given that 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;
- It is proposed to provide aquatic offsetting and compensation through the restoration of 2,893 linear metres of stream via 10m riparian planting and restoration of 6,400m^2 of degraded wetland habitat. The offset/compensation site selected is within the same ecological district (Rodney district). 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. 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;
- As set out within Appendix 7 relevant iwi groups have been appropriately consulted on this Project. It is noted that the relevant iwi authorities have involved with the Project through consultation during Stage 1, the referral process and substantive application associated with the Covid-19 Fast-track application, and subsequently, for this application. Based on the feedback received to date, adverse effects on cultural values are likely to be less than minor, although consultation with iwi is ongoing throughout further stages of the Project. The responsibility for assessing impacts on cultural values ultimately lies with iwi as mana whenua of this area;
- Earthworks near streams to be retained will be undertaken in accordance with best practice such as section 64.0 of GD05 and through the implementation and of the ESCP, ChTMP and AMP; and

- Current barriers to fish passage will be removed as part of this Project through the removal of the existing weir from Waitoki Stream. This will provide for improved connectivity of freshwater fauna habitat.

Based on the analysis above it is considered that the Project is consistent with these relevant objectives and policies.

10.6.2.9 E11 – Regional Land Disturbance & E12 District Land Disturbance

A combined assessment against Chapter E11 and E12 is provided below given the similarities between the provisions for regional and district land disturbance. The common outcome sought is to ensure that land disturbance is undertaken in a manner where the safety of people is protected and adverse effects on the environment are avoided, remedied or mitigated. This is supported by a range of policies which, generally, seek to manage the adverse effects of a sediment discharge on the environment, avoid adverse effects on natural, cultural and historic heritage where practicable, and design and undertake earthworks in a manner that ensures the stability and safety of surrounding land and buildings.

The Project is considered to be consistent with these provisions for the following reasons:

- A suite of erosion and sediment control measures in line with GD05 will be implemented on site to manage any potential adverse sediment discharge effects on the environment. Such measures include, but will not be limited to, silt fence, sediment retention ponds, and clean water diversion bunds;
- Earthworks are anticipated to maintain the stability of surrounding land and structures as assessed in the Geotechnical Report;
- The earthworks associated with the quarry activities will be undertaken in a staged manner in accordance with the staging plan;
- There is one recorded archaeological site (R10/918) just outside the Project area and located north-east of the A-Pit. This will not be disturbed as part of the earthworks associated with the quarry activities; and
- Accidental discovery protocols will be in place and anticipated to be included as a condition of consent.

Overall, it is considered that the Project accords with the objectives and policies of the regional and district land disturbance provisions.

10.6.2.10 E14 – Air Quality

The objectives and policies for air quality are contained in sections E13.2 and E13.3 of the AUP(OP), and aim to protect human health, property and the environment from the adverse effects of contaminant discharges, as well as avoiding and mitigating reverse sensitivity effects.

The Project is considered to be consistent with these objectives and policies for the following reasons:

- 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. This is recognised in the Special Purpose 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;

- It is considered that these effects will be able to be appropriately managed through the Quarry Management Plan (Appendix 27) and Dust Management Plan (Appendix 28) which will specify methods to minimise dust emissions to air, identification of roles and responsibilities for the implementation of this 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;
- 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 entrainment of dust is kept to a minimum; and
- 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 any adverse effects being avoided, remedied or mitigated.

10.6.2.11 E15 – Vegetation Management and Biodiversity

The objectives and policies for vegetation management and biodiversity are contained in sections E15.2 and E15.3 and aim for ecosystem services and indigenous biological diversity values to be maintained or enhanced while providing for appropriate subdivision, use and development.

The Project will enhance and protect 60 ha of land with a predator proof fence, revegetate 61.8ha, undertake 88.28 ha of enrichment planting, and implement a range of pest control and weed management practices. However, 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. 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.

It is therefore considered that the proposal is consistent with these objectives and policies.

10.6.2.12 E27 – Transport

The objectives and policies for transport are contained in sections E27.2 and E27.3, and aim to integrate land use and transport modes to enable benefits to be realised and adverse effects to be managed; provide for parking and loading that supports urban growth and quality compact urban form and is also safe, efficiency and commensurate with the character, scale and intensity of the zone; and to prioritise pedestrian safety and amenity.

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. 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.

Having regard to the above, it is considered that the Proposal is consistent with these objectives and policies.

10.6.2.13 E28 – Mineral Extraction from Land

The objectives and policies for mineral extraction from land are contained in sections E28.2 and E28.3, and seek to ensure that mineral extraction from land and its delivery is efficient and meets Auckland's needs while significant adverse effects are avoided, remedied of mitigated. It aims to 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. Where it is not practicable to locate mineral extraction activities outside these scheduled areas, consideration needs to be given to the benefits, reduced transport effects and extent to which significant adverse effects can be avoided, remedied, mitigated or where not mitigated, can be offset.

Having regard to the relevant objectives and policies, the following is noted:

- 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 Site;
- 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:
    - The Proposal is considered to have a number of benefits as well as reduced transport effects, as follows:
        - Based on current production figures, it is clear that the Auckland region does not have enough aggregate production capacity to support itself currently. 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). 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 lower cost. This would also help to reduce pressure on Waikato's quarries as they will also face future increases in demand locally.
        - In pure cost terms, the extension of Kings Quarry is expected to generate:
            - 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 Proposal 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. We note that this is related to direct employment focused on the

mining and quarry industry. Further employment is projected to be sustained across industries such as professional services, transport and manufacturing.

- A reduction of 12,551 tonnes of CO_2 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 CO_2 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 considered to be minor with the exception of effects on ecological values where adverse effects are considered to be more than minor (but once offsetting and compensation of residual adverse effects is considered, biodiversity 'net gain' is achieved).

- 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. Adequate measures will be in place as outlined in the proposed conditions of consent and implementation of management plans including remediation planting to ensure that adverse effects are avoided, remedied and mitigated.

Having regard to the above, it is considered that the Proposal is consistent with these objectives and policies.

10.6.2.14 H19 – Rural – Rural Production Zone

The objectives and policies of the Rural Production zone are contained in sections H19.3.2 and H19.3.3 of the AUP(OP). The objectives aim to ensure a range of rural production, industry and commercial activities take place in this zone, and that the productive capability of the land is maintained and protected from inappropriate subdivision, use, and development. The policies reinforce the objectives and also provide specifically for forestry, greenhouse and intensive farming activities, whilst managing the adverse effects and requiring compliance with good industry practice throughout 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.

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.

Overall, the Proposal is not considered to be contrary to the objectives and policies for the Rural Production zone.

10.6.2.15 H28 – Special Purpose – Quarry Zone

The objectives and policies of the Special Purpose – Quarry Zone are contained in sections H28.2 and H28.3 of the AUP(OP). The objectives aim to ensure that mineral extraction activities are carried out efficiently at significant mineral extraction site whilst ensuring that significant adverse effects are avoided, remedied or mitigated.

The policies reinforce its objectives and also ensure that the demand for minerals can be met, where possible, from supply sources within Auckland while requiring quarry operators to internalise the adverse effects associated with new or enlarged mineral extraction. The zone also

specifically provides for compatible land uses within or adjoining the zone, including mineral recycling activities and the manufacture of raw products using raw materials from mineral extraction activities.

Having regard to the relevant objectives and policies, the following is noted:

- The Proposal involves mineral extraction activities which are able to be undertaken efficiently at this Site, which is considered to be a significant site given its proximity to existing urban and growth areas;
- As discussed in section 9.0 of this report 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. 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. It is also proposed to undertake remediation planting from Year 1 of the quarry life. To address any residual adverse effects, the applicant proposes pest management, replanting and enhancement that can ensure biodiversity 'net gain' is achieved. While the objectives for this zone do not specifically contemplate offsetting and compensation, they are specifically addressed through the objectives and policies for the SEA overlay, waterbodies, and vegetation management including mineral extraction and these should be read in conjunction;
- It is proposed to manage noise, vibration and dust effects on adjacent sensitive receivers through the implementation of QMP, DMP and through the proposed conditions of consent relating to operating hours and machinery use as well as blasting management;
- The sites will be progressively rehabilitated when areas are no longer required for quarrying activities, and revegetated. 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 are proposed to the base of the rock cuts to climb up the rock faces; and
- Adverse effects will be internalised as much as possible, however some effects, such as landscape 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.

Having regard to the above, it is considered that the proposal is generally consistent and not contrary with these objectives and policies.

10.6.3 Summary

It is understood that the evaluation of the policy framework is not whether the Proposal complies entirely with each and every relevant objective and policy, but rather whether, reading the relevant objectives and policies, it can be said that the Proposal is contrary to them as a whole. In addition, the absence of support for an activity in the objectives and policies of a plan does not equate with "contrary to", which requires repugnancy or opposition. Therefore, the assessment of the relevant objectives and policies should be taken as a whole, rather than considering whether the activity is not contrary to each and every relevant objective and policy.

Based on the above assessment, while there is an inconsistency as offsetting and compensation to address adverse residual effects of ecological values are not specifically contemplated for in the Quarry zone, our analysis demonstrates that the Proposal will be generally consistent with, and for avoidance of doubt, not contrary to, all the objectives and policies. Accordingly, it is considered that the proposed development is not contrary to the relevant AUP(OP) objectives and policies.

10.7 Planning Document Recognised by a Relevant Iwi Authority

Clauses 5(1)(h) and 5(2)(g) of Schedule 5 of the Act requires an application to provide an assessment against a planning document recognised by a relevant iwi authority and lodged with a local authority.

10.7.1 Te Kawerau ā Maki Iwi Management Plan

The Site is located within the rohe of Te Kawerau ā Maki. Te Kawerau ā Maki Resource Management Statement (1995) is the Iwi Management Plan ("IMP") for Te Kawerau ā Maki for the purposes of the RMA. This is the only IMP lodged with Council by a relevant iwi that we are aware of.

The IMP describes the continuing role of Te Kawerau ā Maki as kaitiaki (guardians) and provides policies to guide statutory authorities and applicants:

- Policy 2.2(2) promotes the sustainable management of the environment from Te Kawerau tikanga and (3) captures that all agencies within the rohe are given kaitaki role.
- Policy 4.1.2(3) requires recognition of the cumulative effects of the activity on Te Kawerau ā Maki are provided for.
- Policy 4.2.2(1) ensures the protection of all heritage sites including access.
- Policy 4.3.2 details the management of kōiwi and carrying out relevant archaeological reports for sites where artefacts have been unearthed.
- Policies 4.4.2 detail Te Kawerau ā Maki water policies, and 4.6.2 relating to waste.
- Policy 4.7.2(6) seeks to balance the development of land with the protection of the values of the landscape.

It is considered that the Project is aligned with Te Kawerau ā Maki IMP as it will support the protection of heritage sites across the rohe, as well as carrying out the activity with the utmost management of any kōiwi, if discovered. It will also seek to support significant offsetting, compensation, and replanting of native indigenous vegetation and restoration of waterways both within close proximity and in the wider surrounding environment.

Although the Site is not noted as a specific site of cultural significance, there is always potential for accidental unearthing of features of significance to mana whenua. The Project will operate under the accidental discovery protocol, and will enable cultural monitoring and cultural awareness training as required.

Overall, it is considered that the Proposal can be carried out in a manner that is consistent with the outcomes sought by Te Kawerau ā Maki as outlined in the IMP. Furthermore, the applicant has committed to ongoing engagement with mana whenua.

10.7.2 Summary

Overall, it is considered that the proposed development can be constructed and operated in a manner that is consistent with the environmental outcomes sought by planning documents recognised by relevant iwi authorities and lodged with Auckland Council.

10.8 Other Plans

10.8.1 Auckland Plan 2050

The Auckland Plan sets out the vision for the Auckland Region to 2050. The Auckland Plan serves as the key strategic document to set the Council's social, economic, environmental and cultural objectives.

The Auckland Plan recognises quarries as part of the Rural Strategy in Map 9.1. The priorities in the Auckland Plan also outline the importance of aggregate to Auckland, particularly in infrastructure and housing construction, as well as the longevity of the support of natural resources.

The Proposal will help to supply Auckland locally with the required aggregate to support development across the region for 45 years into the future.

10.8.2 Future Development Strategy 2023-2053

Auckland Council's Future Development Strategy (FDS) was published in 2023 and gives effect to the NPS on Urban Development by identifying a programme to sequence future urban land over 30 years, in line with its purpose to promote long-term strategic planning, within which it identifies broad locations in which development capacity will be provided.

The FDS informs the Council's infrastructure funding priorities and feeds directly into the Council's long term plans, annual plans and other strategic documents.

The FDS has identified areas within proximity to the Site to be released for urban development within the next 25 years, in particular, Silverdale-Dairy Flat, Wainui East, and Upper Ōrewa. 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 for the future development of the Auckland region.

10.9 Planning Instrument Considerations Summary

Overall, the application is considered to be generally consistent with, and not contrary to, the applicable provisions of the NES-F, NES-AQ, NPS-FM, NPS-IB, AUP(OP), and relevant iwi authority documents.

11.0 The Fast-track Approvals Act Decision Making Framework

In considering whether to grant the approvals sought in this application, the Panel must meet the requirements of Section 81 of the Act, which includes applying the specific decision-making clauses in Schedule 5.

11.1 Approvals Relating to Resource Consents Ordinarily Sought under the RMA 1991 – Schedule 5

Clause 17 of Schedule 5 outlines that when considering a consent application and setting conditions, the Panel must take into account the following:

> *(a) the purpose of the Fast-track Approvals Act;*
>
> *(b) the provisions of Parts 2, 3, 6 and 8 to 10 of the Resource Management Act 1991 that direct decision making on an application for a resource consent (but excluding s104D); and*
>
> *(c) the relevant provisions of any other legislation that directs decision making under the Resource Management Act 1991.*

The Panel must give the greatest weight to the purpose of the FTAA.

The reference to Part 2 excludes Section 8 of the RMA and the reference to Part 6 excludes Section 104D. Any provision in Parts 2, 3, 6 and 8 to 10 that would require a decision-maker to decline an application for resource consent under the RMA, "but must not treat the provision as requiring the Panel to decline the application".

Consideration of Section 104(1)(c) of the RMA must include consideration of any mana whakahono a rohe or joint management agreements. This application has been prepared on the basis that Treaty settlements (as defined by the FTAA) and iwi planning documents lodged with the Council, would also be matters considered under this section.

Clause 18 of Schedule 5 outlines that Parts 6, 9 and 10 of the Resource Management Act 1991 relevant to setting conditions on a resource consent apply to the Panel.

11.2 Declining an Approval under Section 85

The Panel must decline an approval if one or more of the situations in Section 85(1) and (2) of the FTAA occur. The situations relevant to all types of approvals that can be sought under the FTAA are:

- The approval is for an ineligible activity;
- The Panel considers that granting the approval would breach obligations relating to treaty settlements and recognised customary rights; and
- In the case of an approval for a resource consent, the approval must be declined if it is in an area covered by clause 17(5) Schedule 5.

A Panel may also decline an approval if the Panel forms the view that:

- The activity or activities for which the approval is sought would have one or more adverse impacts; and

- Those adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits that the Panel has considered, even after taking into account any conditions that the Panel may set in relation to those adverse impacts, and any conditions or modifications that the applicant may agree to or propose to avoid, remedy, mitigate, offset, or compensate for those adverse impacts.

In subsections (3) and (4), adverse impact means any matter considered by the Panel under section 81(2) that weighs against granting the approval.

12.0 Assessment of the Proposal Against the Fast-track Approvals Act Decision-making Framework

12.1.1 Information Considered

This AEE, and Section 8.0 in particular, has been prepared considering the information referred to in s81(2)(a) of the FTAA to the extent it is currently available. Specifically:

- All of the technical reports supporting the application;
- Information from MfE relating to the Schedule application;
- The analysis of Treaty settlement and iwi planning documents as prepared for the application. This was prepared with reference to the comments about these matters in MFE's feedback on the Schedule application; and
- Feedback received from engagement.

12.2 Situations Where the Panel Must Decline an Approval

None of the situations where the Panel must decline an approval apply to the application.

- The application does not seek approval for an ineligible activity as defined in Section 5 of the FTAA;
- There are no Treaty settlements that apply to the site as identified in Section 8.11. As such, granting the approvals sought would not breach Section 7 of the FTAA;
- Clause 17(5) Schedule 5 does not apply to the resource consent approvals sought because they do not include an application for a coastal permit for aquaculture activities; and
- The adverse impacts of the Proposal are not sufficiently significant to be out of proportion to the Project's regional or national benefits.

12.3 The Purpose of the Fast-track Approvals Act

Assessment of the proposal against the purpose of the FTAA is undertaken first because it is relevant to all of the approvals sought in this application, and is to be given the most weight by the Panel in its decision on all approvals.

The purpose of the FTAA is (Section 3 of the FTAA):

"The purpose of this Act is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits"

What constitutes a significant regional or national benefit is not defined in the FTAA. However, the considerations in Section 22(2)(a) have been used as a reference point for the purposes of this analysis.

The Kings Quarry Expansion, and the specific approvals sought to enable the quarry expansion, is considered to meet the purpose of the Act for the following reasons:

- The Project will deliver regionally significant development as it will facilitate construction, including construction of infrastructure, in the Auckland region. Auckland generates 38% of New Zealand's GDP, and without sufficient aggregate, the city's economic performance will suffer, resulting in adverse effects on New Zealand's economy. Aggregate is an essential component of concrete which is needed across the entire urban landscape. Aggregate is also used in raw format across a range of other non-concrete uses. Kings Quarry aggregate offers an opportunity to address the shortfall in aggregate by substituting imported rock for locally sourced aggregate. This will support the local market and place downward pressure on aggregate and reduce the transport load;
- Currently Auckland accounts for only 22% of the national aggregate production. The Project will assist Auckland to reduce its reliance on imported aggregate and reduce the total transport requirement to access aggregate. The expected (annual) transportation savings is $19.8-23.3 million. With the value of the Project to Auckland's economy being estimated to be in the order of approximately $214.2 million (undiscounted) with $103.3 million of this from direct impacts;
- The expansion of Kings Quarry is considered to support climate change through reduction of greenhouse gas emissions through the increase in supply of local aggregate to service the Auckland region. Currently, the wider Auckland region imports a share of its aggregate from Northland and Waikato. The project represents a saving in bulk transport that will have a positive immediate benefit in reducing New Zealand's transport related greenhouse gas emissions. The greenhouse gas emissions report prepared by Air Matters (Appendix 31) identifies that a reduction of 12,551 tonnes of CO2 equivalent greenhouse gas emissions could be achieved annually as a result of the Stage 2 expansion. To provide context, this equates to ~0.35% of New Zealand's total heavy vehicle CO_2 equivalent GHG emissions, using Ministry of Transport data from 2019 as a base year. For a single project, this is a significant benefit; and
- The project does not directly involve the delivery of residential housing supply, however given the importance of aggregate as a foundation product necessary for the development of buildings, roading and infrastructure, increasing its supply and proximity to key growth areas will result in reduced costs for Auckland's construction sector and therefore reduce barriers to intensification and the development of well-functioning urban environments that have a variety of homes. It is therefore considered that the Project will significantly contribute to the development of land and infrastructure for urban land uses

12.4 Resource Consent Approvals Sought: Parts 2, 3, 6 and 8 to 10 of the RMA and Relevant Provisions of Any Other Legislation Directing Decision-making Under the RMA.

12.4.1 Part 2 of the RMA

This section of the application is provided in accordance with clauses 5(1)(g) and 17 of Schedule 5 of the Act.

Section 5 of Part 2 identifies the purpose of the RMA as being the sustainable management of natural and physical resources. This means managing the use, development and protection of the natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being and health and safety while sustaining those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding, remedying or mitigating adverse effects on the environment. It is considered that the Project is complementary to these objectives as it will provide for the social and economic well-being of people and communities by increasing the availability of aggregate for the Auckland market. The preceding assessments demonstrate that the Project will be appropriately managed and carried out in a manner which will not give rise to significant adverse environmental effects and which will, on balance, have significant positive effects for the region whilst managing potential adverse effects appropriately. Any residual adverse effects associated with ecological values will be offset and compensated to ensure that biodiversity 'net gain' is achieved.

With regard to Section 6 of the RMA, the Project provides for the preservation of the natural character of the Waitoki Stream through the removal of the weir to remove significant fish barrier, and retention of surrounding tributaries at the Kings Quarry site outside the quarry footprint. The progressive replanting of indigenous vegetation proposed will remediate the removal of vegetation over time. It is also proposed to enhance and protect 60ha of land with a predator proof fence, revegetate 61.8ha, undertake 88.28ha of enrichment planting, and implement a range of pest control and weed management practices at the Old Field Road offset site which offers significant opportunities to benefit the very high value indigenous fauna with Dome Valley.

Section 7 of the RMA identifies a number of 'other matters' to be given particular regard by Council and includes (but not limited to) kaitiakitanga, the efficient use of natural and physical resources, the maintenance and enhancement of amenity values, and maintenance and enhancement of the quality of the environment. The proposal is considered to be consistent with the matters in section 7, in particular, it enables and facilitates the efficient use and development of the land specifically zoned for mineral extraction activities. The remediation planting proposed will ensure that the amenity values of the environment is appropriately mitigated over time.

With regard to the Treaty of Waitangi (Section 8 of the RMA), the Proposal will not generate any adverse effects on any sites of cultural significance or importance. The Site is not subject to any Treaty Settlement, Treaty claims or any customary title, and there are no wahi tapu on the Site. The relevant iwi authorities have been consulted on the Project as outlined in Section 7.0 above and consultation will continue on an ongoing basis, providing their participation and opportunities for input outside the resource consent process. Conditions of consent are recommended which provide for cultural monitoring and accidental discovery protocols. Overall, no objection to the proposal has been advised, and the appropriate methods set out in this AEE, and subject to ongoing consultation with iwi, there will be no adverse effects which might impact resources of value of iwi.

Overall, as the effects of the proposal are considered to be consistent with all of the above sections of the RMA, and the proposal generally accords with the relevant AUP (OP) objectives, policies, and assessment criteria, it is considered that the proposal will not offend against the general resource management principles set out in Part 2 of the RMA.

12.4.2 Part 3 of the RMA

Part 3 of the RMA relates to the duties and restrictions under the RMA. It is considered that the proposal meets Part 3 of the RMA because:

- The approvals sought are all approvals required under Sections 9 (for land use consents), 13 (for stream works consents), 14 (for water use consents) and 15 (for discharge consents) of the RMA;
- Quarry noise and vibration effects have been assessed (refer **Appendix 36**) and the noise limits set in the AUP(OP) can be met at every adjoining property. As a result, Section 16 of the RMA has been complied with; and
- As has been set out in the earlier sections of this AEE, the proposal has been designed to minimise effects on the natural environment. Any effects that remain are proposed to be managed through a comprehensive suite of conditions, and residual ecological effects will be addressed via the proposed offsetting and compensation package (refer **Appendix 18** and **Appendix 21**). As a result, it is considered that Section 17 of the RMA has been complied with.

12.4.3 Part 6 of the RMA

Part 6 of the RMA relates to resource consents. It sets out how decisions on applications for resource consents are considered if applied for under the RMA. The relevant sections in Part 6 are addressed below.

- The primary decision-making section applying to the application is Section 104 of the RMA. A comprehensive assessment against Section 104 has been undertaken above. In short, it concludes that the resource consent approvals sought are consistent with all of the planning instruments to which regard must be had, with the exception of Objective H28.2 of H28 – Special Purpose Quarry Zone which does not strictly contemplate for offsetting and compensation to address residual effects of ecological values. The implications of this for deciding the application is addressed further below; and
- Under Section 105 RMA when deciding an application for a discharge permit the decision maker must have regard to the nature of the discharge and the sensitivity of the receiving environment to adverse effects; the applicant's reasons for the proposed choice; and any possible alternative methods of discharge, including discharge into any other receiving environment.
    - With regard to potential dust emissions associated with the Project, the nature of the discharge and sensitivity of the receiving environment are discussed in the Air Quality Assessment at **Appendix 33**. In summary, when having regard to separation distances to sensitive receivers and subject to the implementation of the DMP, it is considered that any adverse dust effects will be appropriately mitigated.
- Section 107 specifies specific circumstances when a discharge consent cannot be granted. The Proposal is not anticipated to give rise to any of the matters listed. As detailed throughout

this AEE, erosion and sediment control and adaptive management will be in place to ensure discharge and stormwater runoff from the Project will not adversely affect freshwater environments. The Project will also work under a DMP (refer **Appendix 28**) to ensure dust emissions are minimised.

12.4.4 Part 8 of the RMA

Part 8 of the RMA relates to designations and heritage orders. As no designations, notice of requirements, or heritage orders apply to the site or are proposed, Part 8 is not considered to be relevant to the proposal.

12.4.5 Part 9 of the RMA

Part 9 of the RMA relates to water conservation orders, freshwater farm plans and use of nitrogenous fertiliser. These matters are not relevant to any of the RMA approvals sought.

12.4.6 Part 10 of the RMA

Part 10 of the RMA relates to subdivision and reclamations. It is considered that Part 10 of the RMA is not relevant to this proposal.

12.4.7 Other Relevant Legislation

There is no other primary legislation relevant to the RMA approvals being sought in this application under the RMA. This requirement in clause 17(1)(c) also captures secondary legislation. All the secondary legislation relevant to the application has already been address comprehensively in this AEE.

12.4.8 Conclusion

Based on the analysis above, it is considered that the application is entirely consistent with the parts of the RMA relevant to decision making under the FTAA, and the documents to which they refer.

12.5 Decision Whether to Grant the Approvals Sought in the Application

Resource Consent Approvals

As set out in Section 11.2 above, none of the situations that require the Panel to decline an application apply to this application.

Assessment of the application against Sections 81 and 85 of the Act supports a decision to grant the approvals sought in the application.

Kings Quarry provides several benefits of regional importance. These benefits include providing a supply of aggregate to reduce the regional supply deficit; a total value addition to the economy of $214.2M (undiscounted), with approximately $103.3m of this being direct impacts; construction aggregate transport cost savings of approximately $382M (mid-point) for Auckland's construction sector; a total emissions cost savings of approximately $21.4m, and a reduction of 12,551 tonnes of CO2 equivalent greenhouse gas emissions, which could be achieved annually through transport-related savings, equating to ~0.35% of New Zealand's total heavy vehicle CO2 equivalent GHG emissions.

The potential adverse impacts of the Proposal have been avoided, remedied or mitigated through the design of the quarry and the mitigation measures secured through conditions of consent, and the proposal is generally in accordance with the relevant planning documents. The one exception to this is the proposal's inconsistency with Objective H28.2 of the H28 – Special Purpose Quarry Zone which does not strictly contemplate for offsetting and compensation to address residual effects of ecological values. As noted in this report, while the objectives for this zone do not specifically contemplate offsetting and compensation, offsetting and compensation is specifically addressed through the NPS-IB and NPS-F and 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 planning instruments, while this might be inconsistent with this objective, the zoning of the Site, and the substantial offsetting and compensation regime prepared by the applicant, the Project is not considered to be contrary to this objective. Section 9.0 noted the steps taken by the applicant to avoid, remedy, mitigate, offset and compensate ecological effects associated with the removal of SEA vegetation and identified waterbodies to ensure biodiversity 'net gain' is achieved.

Overall, while the Project will result in permanent, complete loss of all existing freshwater and terrestrial habitat within the Site, the Project has appropriately applied the effects management hierarchy as required by the NPS-IB and NPS-FM and will ensure biodiversity 'net gain' in both terrestrial and freshwater values are achieved.

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 under the AUP(OP). Kings Quarry Stage 2 expansion would reduce 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 lower cost. This would also help to reduce pressure on Waikato's quarries as they will also face future increases in demand locally. Given the importance of aggregate as a foundation product necessary for the development of buildings, roading and infrastructure, increasing its supply and proximity to key growth areas will result in reduced costs for Auckland's construction sector and therefore reduce barriers to intensification and the development of well-functioning urban environments. Supplying the Auckland market using the Kings Quarry resource, instead of importing it from the Waikato and other parts of New Zealand will avoid considerable costs. Avoiding these costs translates into a significant economic benefit as well as a positive immediate benefit in reducing New Zealand's transport related greenhouse gas emissions.

In our view, the adverse impacts arising from the Project are far outweighed by the extensive positive effects that will be generated by the Project.

13.0 Proposed Conditions

This section of the application is provided in accordance with clause 5(1)(k) and clause 18 of Schedule 5 of the Act. These clauses require that an application provides conditions for the resource consent. The proposed conditions of consent which seek to implement the mitigation and monitoring that has been identified in the technical assessments as being necessary are appended to this AEE as Appendix 25.

In recommending the proposed conditions of consent for this application in accordance with Clause 5(1)(k) of Schedule 5, the conditions are proposed to:

- Appropriately manage adverse effects, including providing mitigation to prevent or reduce adverse effects during and after construction in accordance with Clause 6(1)(d) of Schedule 5;
- Provide for monitoring as required by Clause 6(1)(g) of Schedule 5; and
- Give effect to those matters that the panel must consider under Section 81(2)(a).

The conditions are not considered to be more onerous than necessary and comply with Section 83 with reference to Section 81(2)(d). It is considered that they meet the requirements of the Act and that the Panel may grant the resource consent subject to the conditions in accordance with Section 81(1)(a) of the Fast-track Approvals Act 2024.

PART C – WILDLIFE APPROVALS (UNDER SECTION 42(4)(h))

14.0 Approval Framework

14.1 Overview

A wildlife approval that would otherwise be sought under the WA is sought under Section 42(4)(h) of the FTAA.

The wildlife approval sought is for the capture and relocation of Native Lizards (including copper skink *Oligosoma aeneum* and forest gecko *Mokopirirakau granulatus*) and other potentially present native lizard species from the project area to an adjacent area that will be subject to habitat enhancement, pest management and restoration planting. Wildlife approval is **not** sought for any incidental killing of native lizards. For the avoidance of doubt, this wildlife approval application for the capture and relocation of wildlife does not relate to native birds or bats.

A memorandum addressing the required information for an approval described in section 43(3)(h) (wildlife approval) clause 2(1) has been prepared by Bioresearches in accordance with clause 2(1) of Schedule 7 of the Act (refer **Appendix 38**). For completeness, this section of the application provides a summary of the information set out within **Appendix 38**.

For completeness it is noted that there are no fisheries approval requirements sought under Section42(4)(j) of the FTAA. This is discussed in full within the Freshwater Fisheries Activities Memorandum included as **Appendix 39**.

14.2 Proposed Activity

Clause 2(1)(a) of Schedule 7 of the FTAA requires the application to specify the purpose of the proposed activity relating to the wildlife approval.

The proposed activity is set out in detail in Section 6.0 above. In regard to native lizards it is proposed to capture and relocate native lizards in accordance with a Native Lizard and Invertebrate Management Plan (refer **Appendix 19**), over a period of 40-45 years.

14.3 Proposed Wildlife Actions

Clause 2(1)(b) of Schedule 7 of the FTAA requires the applicant to identify the actions they wish to carry out involving protected wildlife and where they will be carried out.

The proposed actions involving native lizards is described within **Appendix 39** as follows:

"The applicant proposes to capture and relocate native lizards, including skinks and geckos in accordance with a native lizard and invertebrate management plan, over a period of 40-45 years. The lizards would be captured and relocated from the proposed quarry footprint to an adjacent area that will be subject to habitat enhancement, including pest management and restoration planting (refer Appendix I), and as detailed in the draft EMP.

The actions will involve pre-clearance trapping and systematic searches, followed by destructive searches during vegetation removal phase (including searches of felled tree foliage), to ensure all opportunities to relocate protected lizards are taken. These methods are detailed in Section 4.2 of the EMP.

The lizards would be released into pest managed and enhanced habitats to the west of the proposed quarry footprint, over the 45- year period. Refer to Figure 10 of the EMP.

Release site enhancement is detailed in Section 4.4.3 of the EMP and overarching pest management design is contained in Section 11 (Mammalian Pest Control Plan) of the EMP."

It is confirmed the activities relating to the wildlife approval will all be undertaken on the Site as described in Section 5.1 above, which is not public conservation land.

14.4 Assessment of the Activity Against the Purpose of the Wildlife Act 1953

Clause 2(1)(c) of Schedule 7 of the FTAA requires an as assessment of the activity and its impacts against the Purpose of the WA.

The overarching purpose of the Wildlife Act is to protect animals classed as wildlife, and control how people interact with wildlife. Wildlife that is to be protected under the Wildlife Act includes native lizards, native birds and long tailed bats (Chalinolobus tuberculatus).

The proposed activities include the removal of vegetation in the Project area that provides (or may provide) habitat to these protected wildlife species.

Section 6 of the EcIA identifies actions that will be undertaken to avoid and minimise impacts on protected wildlife and these are further detailed in the EMP, specifically Section 4 (lizards and invertebrates); 5 (avifauna) and 6 (long-tailed bats).

The management process proposed for lizards includes providing for the capture and relocation of native lizards, where they may occur within vegetation and habitats of the Project area, to protected and enhanced habitats. This requires authorisation under the Wildlife Act. Wildlife approval is **not** sought for any killing of native lizards. The proposed actions ensures that where works, including the removal of vegetation, are undertaken in the Project area, where the protected wildlife may potentially exist, the protected wildlife is able to be captured and relocated to prevent the wildlife from being killed or injured during the course of the works.

The proposed actions are therefore for the primary purpose of ensuring that lizards are protected, consistent with the purpose of the Wildlife Act.

14.5 Protected Wildlife Species in the Area

Clause 2(1)(d) of Schedule 7 of the FTAA requires a list of the protected wildlife species known or predicted to be in the area and, where possible, the numbers of wildlife present and numbers likely to be impacted.

Table 6 below identifies species and their likely numbers known or predicted to be in the area.

Table 6: Wildlife species known or predicted to be in the area.

Status	Species	Predicted Numbers
Confirmed present.	Copper skink, *Oligosoma aeneum*	≥200 individuals
	Forest gecko, *Mokopirirakau granulatus*	≥40 individuals
Potential to be present but were not recorded from survey.	Ornate skink, *Oligosoma ornatum*	≤20 individuals
	Pacific gecko, *Dactylocnemis pacificus*	≤20 individuals
	Elegant gecko, *Naultinus elegans*	≤20 individuals

Unlikely to be present.	Striped skink, *Oligosoma striatum*	<5 individuals
May be present on site but no wildlife authority required.	Long-tailed bat, *Chalinolobus tuberculatus*	N/A
	Native bird species as listed in Appendix H, Table 10 of **Appendix 9.**	N/A

14.6 Impacts on Threatened, Data Deficient, and At-Risk Wildlife Species

Clause 2(1)(e) of Schedule 7 of the FTAA requires that the impacts on threatened, data deficient, and at-risk wildlife species are outlined.

An assessment of the impact on threatened and at-risk species has been carried out within the EcIA (refer **Appendix 9**). Specifically:

- Flora within section 5.3.3.2.1 of **Appendix 9**;
- Lizards within section 5.3.3.2.2 of **Appendix 9**;
- Birds within section 5.3.3.2.3 of **Appendix 9**; and
- Long-tailed bats within section 5.3.3.2.4 of **Appendix 9**.

14.7 Best Practice Standards

Clause 2(1)(f) of Schedule 7 of the FTAA requires a statement of how the methods proposed to be used to conduct the actions involving protected wildlife will ensure that best practice standards are met.

The EcIA sets out how adverse effects are avoided and minimised where practical (refer **Appendix 9**) and the EMP includes management plans for both lizards and bats (refer **Appendix 19**). With specific regard to the wildlife approvals sought for native lizards it is noted in **Appendix 38** that:

"Best practice standards for managing New Zealand lizards are published in the Department of Conservation document, 'Guidelines and model for producing management plans for New Zealand Lizards (prepared by the Department of Conservation). The recommended content of this document has been applied when developing the supporting documents of this application, particularly the Ecological Impact Assessment and Section 4 of the Ecological Management Plan."

Further, the proposed conditions (refer **Appendix 25**) require the final Lizard and Invertebrate Management Plan to include at a minimum:

- Pre-clearance salvaging protocols for native lizards;
- Works management to salvage native lizards during vegetation removal activities, including construction-assisted protocols;
- Incidental discovery protocols for any threatened or 'At Risk' lizard and invertebrate species that may be discovered incidentally at the site, including the Nationally 'At Risk' rhytid snail (Amborhytida dunniae);
- Post-works search protocols to recover any additional lizards in the cleared area;
- Relocation protocols including relocation site(s) selection, and habitat enhancement measures to increase the likelihood of establishment and persistence of relocated individuals;

- Compliance monitoring and reporting requirements, including any triggers for monitoring translocation success at the release site.

14.8 Methods to Manage Wildlife and Animal Ethics processes

Clause 2(1)(g) of Schedule 7 of the FTAA requires a description of the methods to be used to safely, efficiently, and humanely catch, hold, or kill the animals and identify relevant animal ethics processes.

A detailed methodology for the capture and handling of lizards by experienced ecologists/herpetologists is contained within Section 4 of the EMP (refer **Appendix 19**). For the avoidance of doubt, birds and bats are not proposed to be handled as part of this proposal.

14.9 Location of the Activity

In accordance with Clause 2(1)(h) of Schedule 7 of the FTAA, the proposed capture and relocation will be carried out on the site as shown in **Figure 29** below.

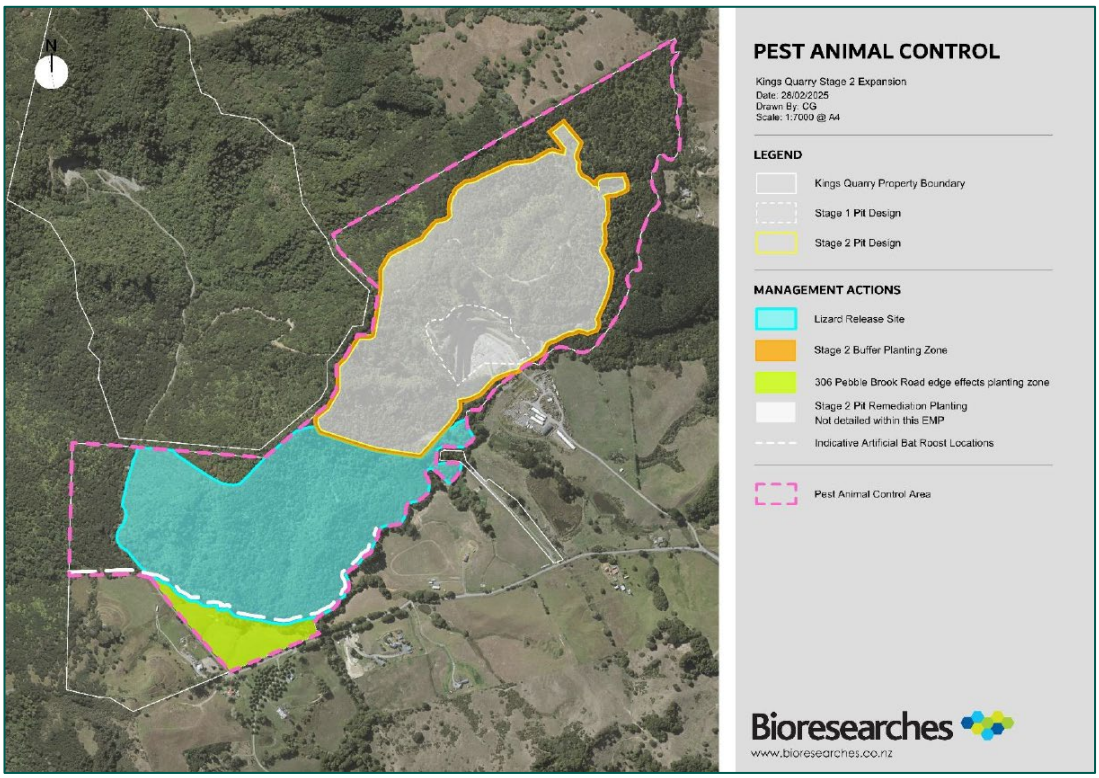

Figure 29: Proposed location of lizard release. Source: Appendix 38.

14.10 Holding and Relocation of Wildlife

In accordance with Clause 2(1)(i) of Schedule 7 of the FTAA, it is confirmed that authorisation is sought to relocate wildlife (native lizards) to adjacent enhanced environments.

14.11 Assessment of Effects

Clause 2(1)(j) of Schedule 7 of the FTAA requires a list of all actual and potential wildlife effects (adverse or positive) of the proposed activity, including effects on the target species, other indigenous species, and the ecosystems at the site.

A comprehensive assessment of ecological (including wildlife) effects has been undertaken within the EcIA (refer **Appendix 9**) and within Section 9.2 above. Bioresearches confirm within **Appendix 38** that:

"Overall, the proposal will result in the direct loss of 28.97 ha of regenerating forest. Following ecological management, including fauna-specific and buffer planting, significant (moderate and higher) residual effects are expected following permanent loss of forest and habitats.

While adverse effects on fauna and flora values are reduced to low through site management (e.g. remediation, buffer planting, targeted management plans as detailed through sections of the EMP), a biodiversity offset would provide for 61.8 ha of revegetation, 60 ha of predator-proof fencing and 57.52 ha of browser control to offset and compensate for the removal of high value indigenous forest ecosystem. The modelled outcomes would result in a significant overall net gain outcome for biodiversity values."

With specific regard to native lizards, specific management of these species is provided for, in accordance with a Native Lizard and Invertebrate Management Plan (refer **Appendix 19**). This management plan details capture and relocation methods for native lizards, prior to and during vegetation removal, and associated habitat enhancement measures at the relocation site. Bioresearches confirm following the proposed management measures of sequential remediation, buffer and enhancement planting, and targeted capture-relocation and habitat enhancement, the overall level of effect on native lizards would be reduced to low (refer **Appendix 9**).

14.12 Avoid, Minimise, Offsetting, and Compensation of Effects

Clause 2(1)(k) of Schedule 7 of the FTAA requiresthe application to state the methods used to avoid and minimise identified effects, and any offsetting or compensation proposed to address unmitigated adverse effects.

The EcIA (refer **Appendix 9**) and Section 10.4.3 above detail how the effects management hierarchy is applied to avoid and minimise adverse effects, including the implementation of a EMP (refer **Appendix 19**). Bioresearches confirm within **Appendix 38** that:

"The overall level of effect on indigenous fauna, including at risk lizards (copper skinks and forest geckos) is assessed as low, following management actions to avoid and minimise actual and potential effects"

It is noted that following the proposed management actions, there are residual effects for the removal of regenerating indigenous vegetation and the high value habitats they support. These residual effects are offset and compensated as set out in the REAR-T (**Appendix 18**) and REMP (**Appendix 24**).

14.13 Offences and Criminal Charges Under the Wildlife Act 1953

In accordance with Clause 2(1)(l) and Clause 2(1)(m) of Schedule 7 of the FTAA, it is confirmed that the applicant or any company director, trustee, partner, or anyone else involved with the application has not been convicted of any offence under the WA and do not have any current criminal charges under the WA pending before a court.

14.14 Consultation

Clause 2(1)(n) of Schedule 7 of the FTAA requires proof and details of all consultation, including with hapū or iwi, on the application specific to wildlife impacts.

As set out in section 7.0 above and within the Consultation Summary Report (refer **Appendix 7**), consultation has been undertaken with all relevant parties. Including:

- The Department of Conservation;
- Relevant iwi and hapū;
- Auckland Council;
- The Environmental Protection Agency; and
- The Ministry for the Environment.

14.15 Expert Views, Advice, and Opinions

In accordance with Clause 2(1)(o) of Schedule 7 of the FTAA, ecological advice has been obtained from Dr Chris Wedding of Bioresearches (refer **Appendix 9, Appendix 18, Appendix 19, Appendix 21, Appendix 24, Appendix 38**, and **Appendix 39**). Additional expert views have been obtained by the applicant as follows:

- Dr. Matt Baber of Alliance Ecology for an independent review of terrestrial ecological methods (refer **Appendix 22**);
- Mr. Mark Lowe of Morphum Environmental for an independent review of freshwater ecological methods (refer **Appendix 23**); and
- Dr. John McLennan of Pest Proof Fences Limited for a feasibility study of the proposed predator-proof fence (refer **Appendix 18**).

15.0 The Fast-track Approvals Act Decision Making Framework

In considering whether to grant the approvals sought in this application, the Panel must meet the requirements of Section 81, which includes applying the specific decision-making clauses in Schedule 7. These are each discussed in turn below.

15.1 Approvals Relating to Wildlife Act 1953 – Schedule 7

Clause 2 of Schedule 7 of the Act relates to information that is required for an application for a wildlife approval. This information has been provided within the memorandum prepared by Bioresearches included as **Appendix 38** and throughout this AEE, in particular in section 14.0 above.

Clause 5 of Schedule 7 outlines that for the purpose of the Panel's decision under Section 81, the Panel must take into account:

- The purpose of the FTAA;
- The purpose of the WA and the effects of the project on the protected wildlife that is to be covered by the approval; and

- Information and requirements relating to the protected wildlife that is to be covered by the approval (including, as the case may be, in the New Zealand Threat Classification System or any relevant international conservation agreement).

The Panel must give the greatest weight to the purpose of the Fast-track Approvals Act.

Clause 6 of Schedule 7 relates to imposition of conditions for a wildlife approval.

15.2 Declining an Approval under Section 85

The Panel must decline an approval if one or more of the situations in Section 85(1) of the FTAA occur. The situations relevant to all types of approvals that can be sought under the FTAA are:

- The approval is for an ineligible activity; and
- The Panel considers that granting the approval would breach obligations relating to treaty settlements and recognised customary rights.

A Panel may also decline an approval if the Panel forms the view that:

- The activity or activities for which the approval is sought would have one or more adverse impacts; and
- Those adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits that the Panel has considered, even after taking into account any conditions that the Panel may set in relation to those adverse impacts, and any conditions or modifications that the applicant may agree to or propose to avoid, remedy, mitigate, offset, or compensate for those adverse impacts.

In subsections (3) and (4), adverse impact means any matter considered by the Panel under section 81(2) that weighs against granting the approval.

16.0 Assessment of the Proposal Against the Fast-track Approvals Act Decision-making Framework

16.1.1 Information Considered

This AEE, and Section 14.0 in particular, has been prepared considering the information referred to in s81(2)(a) of the FTAA to the extent it is currently available. Specifically:

- All of the technical reports supporting the application;
- Information from MfE relating to the schedule application in response to engagement undertaken as the substantive application was prepared; and
- Feedback received from engagement.

16.2 Situations Where the Panel Must Decline an Approval

None of the situations where the Panel must decline an approval apply to the application.

- The application does not seek approval for an ineligible activity as defined in Section 5 of the FTAA; and

- There are no Treaty settlements that apply to the site as identified in Section 8.11. As such, granting the approvals sought would not breach Section 7 of the FTAA.

16.3 The Purpose of the Fast-track Approvals Act

Assessment of the proposal against the purpose of the FTAA is undertaken first because it is relevant to all of the approvals sought in this application, and is to be given the most weight by the Panel in its decision on all approvals.

The purpose of the FTAA is (Section 3 of the FTAA):

> *"The purpose of this Act is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits"*

For the reasons set out in Section 12.3 above and highlighted below, the Kings Quarry Expansion – Stage 2, and the specific approvals sought to enable its development, is considered to meet the purpose of the Act.

Kings Quarry provides several benefits of regional importance. In summary, these benefits include providing a supply of aggregate to reduce the regional supply deficit; a total value addition to the economy of $214.2M (undiscounted), with approximately $103.3m of this being direct impacts; construction aggregate transport cost savings of approximately $382M (mid-point) for Auckland's construction sector; a total emissions cost savings of approximately $21.4m, and a reduction of 12,551 tonnes of CO2 equivalent greenhouse gas emissions, which could be achieved annually through transport-related savings, equating to ~0.35% of New Zealand's total heavy vehicle CO2 equivalent GHG emissions.

16.4 Approvals Sought Under the Wildlife Act 1953.

16.4.1 The purpose of the Wildlife Act 1953

This section of the application is provided in accordance with clause 5(b) of Schedule 7 of the Act.

An assessment against the purpose of the WA and the effects of the project on the protected wildlife that is to be covered by the approval were provided within section 14.4 and 14.11 respectively. Overall, it was found that the proposed activity achieves the purpose of the WA and the overall level of effect on at-risk lizards is assessed as low following the proposed management actions.

16.4.2 Information and Requirements Relating to the Protected Wildlife that is to be Covered by the Approval

This section of the application is provided in accordance with clause 5(c) of Schedule 7 of the Act.

All information requirements required for the proposed wildlife approval have been provided within 14.0 above and within the comprehensive suite of ecological material provided by Bioresearches.

16.5 Decision Whether to Grant the Approvals Sought in the Application

As set out in Section 15.2 above, none of the situations that require the Panel to decline an application apply to this application.

Assessment of the application against Sections 81 and 85 of the Act supports a decision to grant the approvals sought in the application.

Kings Quarry provides several benefits of regional importance. These benefits include providing a supply of aggregate to reduce the regional supply deficit; a total value addition to the economy of $214.2M (undiscounted), with approximately $103.3m of this being direct impacts; construction aggregate transport cost savings of approximately $382M (mid-point) for Auckland's construction sector; a total emissions cost savings of approximately $21.4m, and a reduction of 12,551 tonnes of CO2 equivalent greenhouse gas emissions, which could be achieved annually through transport-related savings, equating to ~0.35% of New Zealand's total heavy vehicle CO2 equivalent GHG emissions.

Due to the three species of lizard with a threat classification of 'At Risk – Declining' being known to be present within the Project area, the ecological value for lizards has been assigned as high. Given the proposed vegetation removal to facilitate the quarry activities, it is proposed to capture and relocate native lizards in accordance with a Native Lizard and Invertebrate Management Plan over a period of 40-45 years. This management plan details capture and relocation methods for native lizards, prior to and during vegetation removal, and associated habitat enhancement measures at the relocation site. Following the proposed management measures of sequential remediation, buffer and enhancement planting, and targeted capture-relocation and habitat enhancement, the overall level of effect on native lizards would be reduced to low.

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 under the AUP(OP). Kings Quarry Stage 2 expansion would reduce 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 lower cost. This would also help to reduce pressure on Waikato's quarries as they will also face future increases in demand locally. Given the importance of aggregate as a foundation product necessary for the development of buildings, roading and infrastructure, increasing its supply and proximity to key growth areas will result in reduced costs for Auckland's construction sector and therefore reduce barriers to intensification and the development of well-functioning urban environments. Supplying the Auckland market using the Kings Quarry resource, instead of importing it from the Waikato and other parts of New Zealand will avoid considerable costs. Avoiding these costs translates into a significant economic benefit as well as a positive immediate benefit in reducing New Zealand's transport related greenhouse gas emissions.

In our view, the adverse impacts arising from the proposed capture and relocation of native lizard are far outweighed by the extensive positive effects that will be generated by the Project.

17.0 Proposed Conditions

This section of the application is provided in accordance with clause 6 of Schedule 7 of the Act. These clauses provide that a panel may set any conditions on a wildlife approval that the panel considers necessary to manage the effects of the activity on protected wildlife. The proposed conditions of consent relating to the wildlife approval sought are as follows:

Lizard and Invertebrate Management Plan

x. *The objective of the Lizard and Invertebrate Management Plan is to describe how potential adverse effects of the Project on native lizards and rhytid snail (Amborhytida dunniae) will be avoided or minimised.*

x. *The Lizard and Invertebrate Management Plan must be prepared by a suitably qualified and experienced herpetologist and must include as a minimum:*

   a. *Pre-clearance salvaging protocols for native lizards*

   b. *Works management to salvage native lizards during vegetation removal activities, including construction-assisted protocols*

   c. *Incidental discovery protocols for any threatened or 'At Risk' lizard and invertebrate species that may be discovered incidentally at the site, including the Nationally 'At Risk' rhytid snail (Amborhytida dunniae).*

   d. *Post-works search protocols to recover any additional lizards in the cleared area*

   e. *Relocation protocols including relocation site(s) selection, and habitat enhancement measures to increase the likelihood of establishment and persistence of relocated individuals.*

   f. *Compliance monitoring and reporting requirements, including any triggers for monitoring translocation success at the release site.*

x. *The Lizard and Invertebrate Management Plan must be submitted to Auckland Council for certification and must be implemented in full over the life of the consent.*

   Advice note:

   To survey capture, relocate, or otherwise disturb lizards, a Wildlife Act Authority is required from the Department of Conservation.

Mammalian Pest Control Plan – Quarry Site and 306 Pebble Brook Road

x. *The Mammalian Pest Control Plan (MPCP) addresses the management of pests at the quarry site and adjacent site at 306 Pebble Brook Road.*

x. *The objective of the MPCP is to achieve pest control for all target species (mice, rats, stoats, ferrets, weasels, feral cats, rabbits, wasps, pigs and goats) and to maintain populations at the identified management targets.*

x. *The MPCP must be prepared by a suitably qualified and experienced ecologist and set out the procedures to be implemented by the Consent Holder to achieve the objectives set out in Condition XX, and, as a minimum, specify:*

   a. *Target pest species, pest reduction targets and target thresholds to be achieved to enable the objectives of the MPCP*

   b. *Methods to achieve target species outcomes, which will include descriptions of spatial configuration of bait lines and baiting and/or trapping details including types of baits/traps and frequency of baiting/servicing*

x. *A description of monitoring/surveillance proposed in accordance with standard accepted practice. Pest control shall be undertaken in accordance with the MPCP on an ongoing basis for the life of the consent.*

x. *The Consent Holder must ensure that the pest control management targets and management thresholds set out in Table 1 below, are met and sustained for the period specified in Condition 41. These targets will come into effect one year after commencement of the MPCP to allow for control and monitoring infrastructure to be deployed.*

Table XX: Pest species, management targets and thresholds for MPCP. CCI is a chew-card index and CH refers to the number of camera hours.

Pest Species	*Management Target*	*Threshold*	*Monitoring frequency*
Mice (in Lizard Management Area Only)	<10% CCI	>15% CCI	*Four monitors per year in February, May, August, and November*
Rats	<5% CCI (Sep – Feb), <10% CCI (Mar – Aug)	≥10% CCI (Sep – Feb), >15% CCI (Mar – Aug)	
Possums	<5% CCI	≥10% CCI	
Stoats	2 detections per 2000 CH	3 detections per 2000 CH	
Ferrets	2 detections per 2000 CH	3 detections per 2000 CH	
Weasels	2 detections per 2000 CH	3 detections per 2000 CH	
Feral cats	3 detections per 2000 CH	>5 individual cat detections per 2000 CH	
Wasps	As per Vespex protocol	As per Vespex protocol	
Rabbits	Initiate control if observed	Any observation (incl. sign)	
Pigs and goats	Initiate control if observed	Any observation (incl. sign)	

x. *Pest populations must be controlled to the targets specified in Table 1 above. Additional pest management will be required to meet targets if monitoring identifies that:*

   a. *A target has been exceeded on two consecutive monitoring occasions; or*

   b. *Pest populations have met or exceeded a threshold.*

x. *All monitoring including trap catch and bait consumption information, will be made available to the Council within three months of each monitoring survey.*

In setting the proposed conditions for this application in accordance with Clause 6(2) of Schedule 7, the Panel must:

- Consider whether the condition would avoid, minimise, or remedy any impacts on protected wildlife that is to be covered by the approval;

- Where more than minor residual impacts on protected wildlife cannot be avoided, minimised, or remedied, ensure that they are offset or compensated for where possible and appropriate; and
- Take into account, as the case may be, the New Zealand Threat Classification System or any relevant international conservation agreement that may apply in respect of the protected wildlife that is to be covered by the approval.

The conditions are not considered to be more onerous than necessary and comply with Section 83 with reference to Section 81(2)(d). It is considered that they meet the requirements of the Act and that the Panel may grant the approval subject to the conditions in accordance with Section 81(1)(a) of the Fast-track Approvals Act 2024.

PART D – CONCLUSIONS

18.0 Conclusions

The Proposal involves the establishment of Stage 2 Kings Quarry, including the extraction of approximately 500,000 tonnes per year of aggregate for a period of up to 45 years, at Pebble Brook Road, Wainui. Based on the above report, it is considered that:

- The Proposal achieves the purpose of the FTAA to facilitate the delivery of infrastructure and development projects with significant regional and national benefits while continuing to promote the sustainable management of natural and physical resources;
- The Proposal is considered to be consistent with Parts 2, 3, 6 and 8 to 10 of the RMA;
- Appropriate consultation and engagement have been undertaken with Auckland Council, Department of Conservation and Mana Whenua;
- Consideration of planning documents recognised by relevant iwi authorities and lodged with Auckland Council has been undertaken;
- Having considered the actual and potential effects of the Proposal, the Proposal will only generate minor adverse effects (with the exception of ecological values) that, subject to appropriate conditions of consent, will be avoided, remedied or mitigated. Where residual adverse ecological effects cannot be avoided, remedied or mitigated, offsetting and compensation is proposed to achieve a net gain outcome on indigenous biodiversity;
- The Proposal accords with relevant AUP(OP) objectives, policies and assessment criteria;
- The Proposal meets the requirements under the NES-F;
- The Proposal accords with the NPS-IB, NPS-UD and NPS-FM;
- The Proposal is considered to be consistent with the purpose of the WA; and
- The Proposal has provided all the relevant information and requirements in relation to the resource consents and wildlife approval sought.

For the reasons set out in this AEE it is considered that the Panel is required to grant the approvals sought, subject to appropriate conditions, in accordance with Sections 81 and 85 of the FTAA.