



Boffa Miskell



Part
B

Hunua Quarry Development

Substantive Application
Part B – Assessment of Environmental Effects and
Application for Resource Consent
Prepared for Winstone Aggregates

22 June 2026



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Executive Summary

Winstone Aggregates (Winstone) (a division of Fletcher Concrete and Infrastructure Limited) (FCIL) proposes to develop the existing Symonds Hill Pit within the Hunua Quarry to secure additional high-quality greywacke resource and enable the continued extraction of aggregate from the quarry for a further 80 years. Initial investigations confirm that there is significant aggregate resource within the Hunua Quarry landholding to support a long-term extraction horizon; up to 80 years (based on current rates of demand and known site constraints). This project is integral to the Auckland region meeting its ongoing demand for construction materials, as the Auckland region continues to grow and replace/revitalise its infrastructure.

Hunua Quarry has operated for over 100 years and is recognised as one of Auckland's three most strategically important sources of aggregate. It is located approximately 5 km east of Papakura and 35 km southeast of Auckland's CBD. The current site lies within the Special Purpose – Quarry Zone (SPQZ) under the Auckland Unitary Plan (Operative in Part) and encompasses a well-established quarrying and processing complex.

The quarry produces a range of aggregate grades used in the manufacture of concrete, asphalt, and roading materials, and supports regional infrastructure projects of national importance. The proposed development will provide for the operational re-configuration of key elements of the quarry (diverting a stream tributary, constructing a new haul road and alignment of existing consents), as well as key infrastructure, to unlock the maximum potential of an expanded Symonds Pit. The Project will enable sustainable extraction of the resource and the continuation of quarrying within Winstone's existing site for up to 80 years, while also seeking to continue implementing best practice water management, maintaining stream health (and improving where practicable), and ensuring a high standard of environmental performance.

Winstone's substantive application seeks the approvals necessary to enable access to that long-term resource. Land use consents (which are to apply in perpetuity) are sought to enable access to that resource over the extended life of the Symonds Hill Pit providing for excavation of aggregate, and all supporting quarry infrastructure required to set the quarry up for 80 years and beyond as well as activities necessary to run the quarry i.e. processing, overburden, quarry operations, transport /access and ancillary/related activities.

All other regional consents are sought for the maximum term available under the RMA of 35 years, recognising that further replacement regional consents will be required for the Quarry throughout that period (every 35 years).

The extraction of resources from a quarry is reliant on market demand, which then influences the design of the pit and the length of life any pit design has. If the market demand is higher, the resource will be extracted earlier; if it is low, it will stay in the ground for longer and essentially extend the life of the quarry. However, currently the supply of aggregate from within the Auckland region is in deficit, relying on exports from other regions such as Waikato.

The substantive application includes a Resource Report which includes a Life of Quarry Strategy, identifying potential options for how the quarry development could progress (subject to the necessary investigations and assessments being undertaken at the relevant time) beyond the current maximum term of the regional consents, alongside the land-use consents that enable up to 80 years' extraction and rehabilitation options for the post-closure period.

This Assessment of Effects on the Environment (AEE) report has been prepared to accompany a substantive application to the Environmental Protection Authority (EPA) for the expansion and operation of the quarry pit and its ancillary activities, under section 42(1) of the Fast-track Approvals Act 2024 (FTAA). Winstone is an 'authorised person' and the 'Hunua Quarry Development' is a listed project under Schedule 2 of the FTAA. This application is not for an ineligible activity as defined in section 5 of the FTAA.

This substantive application is seeking the following approvals under section 42(4) of FTAA:

- resource consents required under the Resource Management Act 1991,
- changes and cancellations of existing consent conditions where these are material to the implementation or delivery of the project,
- a Wildlife Act approval (Sch. 7),
- an Archaeological Authority under the Heritage New Zealand Pouhere Taonga Act (Sch. 8), and
- a Complex Freshwater Fisheries approval under the Freshwater Fisheries Regulations 1983 (Sch. 9).

Aggregate is a strategic enabling input to New Zealand's housing delivery, transport networks, infrastructure and broader civil construction programmes. Each region, including Auckland, is highly reliant on the availability and price of aggregate in its locality. As a low-value, high-volume commodity, the delivered cost of aggregate is highly sensitive to transport distance and the ability of local supply to respond to demand. The aggregate market is highly constrained, involving significant establishment costs, site limitations, potential site depletion and disruptions. This can translate into higher delivered costs and hamper development. Therefore, a secure and reliable aggregate supply is critical to economic and social well-being of Auckland's people and communities.

The configuration of the aggregate supply system directly influences project feasibility, construction timelines and the cost base for the entire construction sector. Aligned with the Government's Going for Growth agenda (2025), the Project protects local aggregate supply at a scale and proximity required by Auckland's construction economy, reducing the cost burden compared with alternative, more distant sources, thereby supporting the timely delivery of housing and infrastructure. This is reflected in the National Policy for Infrastructure 2025 (NPS-I) which provides for infrastructure supporting activities that may include quarrying. There is no alternative to aggregate and a secure supply of affordable construction materials is essential to timely and cost-effective development and renewal of infrastructure.

The Hunua Quarry Development is designed to expand the Symonds Hill Pit and will require the following works to be undertaken over 8 indicative stages:

- Deepen the pit progressively to an ultimate floor elevation of approximately -50 m RL, enabling quarrying beyond that in later years to access further resource.
- Realign approximately a 1200 m length of a tributary to Mangapū (Symonds) Stream during Stage 1 to enable the safe expansion of the extraction footprint while achieving ecological and hydrological improvements. The ecological compensation needed for this work will also occur in the early stages of the Project.

- Construct new sediment retention ponds, haul road, drainage networks, and stream tributary realignment integrated with the existing quarry systems.
- Rationalise the areas of existing indigenous vegetation to be protected by covenants on the Site.
- Removal of 44.46ha of indigenous vegetation, associated with the stripping of overburden and associated offsets.
- Removal of 44.46ha of indigenous vegetation, associated with the stripping of overburden and associated offsets, and implementation of progressive rehabilitation, ecological compensation and stream enhancement measures throughout the 80-year life of the project. Winstone will ensure that all ecological impacts are appropriately managed, offset and/or compensated for, in accordance with best practice.

Offset planting area	Protection of existing bush	Total protected vegetation area	Stream offset area	Wetland offset area	Compensation activities
85.62ha	16.33ha	101.95ha	3,538m ²	2.51ha	Pest management Improved water quality in headwater catchments through stock exclusion and revegetation Improved connectivity in streams with the removal of farm ponds Achievement of improved connectivity to and from Whangamarino wetland Willow clearance

- Implementation of progressive rehabilitation (where practicable), ecological compensation and stream enhancement measures throughout quarry development. Winstone will ensure that all ecological impacts are appropriately managed, offset and/or compensated for, in accordance with best practice.
- Construct the western haul road to provide a more efficient connection between the pit and the processing yard.
- Provide for some in-pit crushing to enable a greater volume, and more efficient, processing of aggregate.
- Provision for the placement of a greater volume of overburden within the Site.
- Upgrade the site access to ensure the safe and efficient operation of Hunua Road.
- Maximise processing and operational hours, while managing effects to acceptable levels.
- Enable quarry development below RL-50m as part of the long-term development of the Symonds Hill Pit, recognising that this deeper resource would only be accessed once the earlier stages of the pit have been quarried. The final Life of Quarry Strategy

will be confirmed prior to any excavation below RL-50m and will detail further investigations necessary to ensure that adverse environmental effects associated with later-stage extraction and/or rehabilitation are appropriately identified, assessed, and managed (including obtaining any regional consents required).

In addition, a subdivision consent for a boundary adjustment is sought. The proposal will adjust boundaries at the edge of the site and is a subsidiary activity that supports the mitigation of the proposal. The applicant has agreed to acquire this piece of land in exchange for a neighbouring landowner approval to assist with mitigating effects on this property, if left it would result in this portion of the neighbouring site surrounded by quarrying activity.

The proposed works are confined to Winstone-owned land and will use the existing processing, stockpiling, and dispatch facilities located in the main operations area. No new external access or public infrastructure is required.

To enable the long-term planning of mineral extraction activities and to ensure certainty of aggregate supply to the Auckland market, Winstone seeks:

- Land use consents (earthworks, vegetation clearance and the disposal of overburden) in perpetuity (unlimited duration), and
- Water take and use and all discharge permits with a 35-year duration.

The default period of five years is sought as the lapse period for the consents.

All components of the quarry operations that require consent are interconnected, so it is appropriate that the consents are 'bundled' for the application and assessment purposes and that an overall assessment of the application is made as a **non-complying activity**. However, under Clause 17(1)(b), Schedule 5 of the FTAA, a s104(D) RMA assessment is not required.

This AEE that forms part of the substantive application under the FTAA, sets out the proposed design features and operational measures for the expansion of the Symonds Hill Pit and measures proposed to minimise potential adverse impacts on the environment. The Project demonstrates Winstone's commitment to sustainable quarrying, best-practice environmental management, and partnership with mana whenua and local stakeholders under the Fast-track Approvals framework.

This AEE report draws the following conclusions:

- The Project is consistent with the purpose of the FTAA as it will secure a significant volume of high-quality aggregate in the Auckland Region; a fundamental resource required to facilitate the delivery of infrastructure and development projects that provide significant regional and national benefits.
- The Site is predominantly zoned for quarry activity, and while the expansion extends activity beyond that zoning, there is broad consistency overall with the relevant national, regional and local planning policy framework. Recognising the locational constraint of the aggregate resource, and the functional and operational needs of the Project, direction has been taken from this framework in setting a comprehensive effects management and offsetting approach, particularly in relation to how the Project impacts on terrestrial and freshwater ecological systems, cultural associations, landscape, natural character and visual amenity, as well as human health and well-being.

- The Project is supported by a compelling economic case and will deliver significant and sustained benefits predominantly for the Auckland region across multiple dimensions. Assessed conservatively, the avoided cost analysis estimates regional economic benefits in excess of \$ 664M, alongside the significant value added and employment impacts with the spend level required by the Project. A (current) annual revenue of \$65m illustrates the scale of the project and the associated investment in plant and labour.
- **Ecology:** The Project requires notable terrestrial indigenous vegetation removal, habitat disturbance, wetland and watercourse loss, and stream realignment. However, subject to the proposed comprehensive ecological management approach, adverse effects on ecological values will not be significant. All adverse ecological effects can be avoided, remedied, minimised, offset or compensated, through a range of approaches. In relation to terrestrial biodiversity values (vegetation, herpetology, avifauna and bats) indigenous biodiversity values will be maintained and enhanced as a result of the Project. Similarly for freshwater ecology, following the application of effects management approaches, wetland and freshwater ecology values will also be maintained and enhanced. Overall, the expert opinion is that subject to the implementation of the recommended effects management actions, the ecological effects associated with the Hunua Quarry Development will result in no net loss of terrestrial, wetland and aquatic habitat extent or values, and positive effects that outweigh adverse effects, equating to a net positive gain, in accordance with aquatic and indigenous biodiversity offsetting and compensation principles.
- **Archaeology:** No archaeological or historic heritage sites are recorded within the development area, and those that are recorded in the vicinity will not be affected by the Proposal. An archaeological authority is being sought as part of this application for Stages 1-3, and as part of the mitigation approach an Archaeological Management Plan will outline the procedures to be followed during archaeological monitoring of earthworks and procedures for recording any archaeological evidence before it is modified or destroyed. It also provides protocols for the exposure of archaeological remains including koiwi tangata (human remains) or taonga tuturu (Māori artefacts). Prior to commencing Stages 4-8 another archaeological authority may be sought or reliance placed on the Accidental Discovery rule (E12.6.1) of the AUP. Overall, adverse impacts on archaeological values are considered to be less than minor (not significant) and will be appropriately mitigated under the proposed conditions.
- **Transportation:** Despite almost doubling production at the quarry, the transport assessment concludes that the Project will result in a net positive gain for the transport network. The upgrades to the existing site access to include a full right turn bay on Hunua Road will ensure that, despite the increase in truck volumes, the Project will not adversely impact on the operation, function, capacity and safety of the surrounding transport network. Once the upgrades proposed to the site access (provision of the recommended right turning bay) are considered, the overall outcome is considered to result in net positive gain (positive effects) in terms of safety when compared to the status quo.
- **Air Discharge:** There is the potential for unmitigated dust discharges to cause off-site nuisance effects, particularly during the relatively large-scale overburden stripping required during Stage 4 of the expansion at the nearest receptors to the

southwest of the pit. However, these potential adverse effects will be effectively managed using mitigation measures and controls, that have already proven to be effective at this Site, to a point where there is a low likelihood of off-site nuisance occurring, including cumulatively. Additionally, there is a very low likelihood of either PM₁₀ or RCS being present at concentrations that could cause any form of off-site health effects. Overall, the adverse impacts of dust on the environment, including on sensitive receivers, are considered to be no more than minor and not significant.

- **Landscape, Visual Amenity and Natural Character:** The Project will result in unavoidable adverse landscape, natural character, and visual effects, particularly during the early and later stages of quarry development. These effects will be managed through a comprehensive programme of native revegetation across the offset sites, and rehabilitation within the Symonds Hill Pit will play a central role in regreening the landscape over time. These measures will progressively re-establish vegetative patterns, soften engineered landforms, and enhance ecological connectivity across the wider landscape.

The landscape character effects at the local level are assessed as moderate-high (adverse) during operation before mitigation, reducing to moderate (adverse) at completion (after mitigation). At the broader landscape, landscape character effects are assessed as low (adverse) during operation before mitigation, reducing to very low (adverse) at completion (after mitigation). Localised effects on the ONL are assessed as moderate (adverse) during operation before mitigation, reducing to low–moderate (adverse) at completion after mitigation. At the broader ONL level, the effects are considered to be low-moderate (adverse) during operation before mitigation, reducing to low (adverse) at completion after mitigation.

Overall, some landscape effects (at the local scale) will remain more than minor following mitigation but will not be significant, all other landscape and visual effects will not be significant.

- **Hydrology and Groundwater:** The groundwater effects related to the Project have been assessed on conservative assumptions and found to be potentially significant, given the scale of the proposed works. However, potential effects can be readily managed through the implementation of the proposed mitigation, monitoring, augmentation measures and measures to address drawdown effects in private bores. This will ensure that adverse effects will be no more than minor and not significant.
- **Land Disturbance:** Informed by the success of current practices employed on-site and designed and managed in accordance with best practice and regional guidance, erosion and sediment control measures will reduce the impacts of erosion and sediment loss resulting from land disturbance on aquatic habitats and water quality to a level that is no more than minor and not significant.
- **Geotechnical and Site Stability:** The geotechnical assessment confirms the quarry development to be feasible and finds offsite effects such as slope stability, groundwater drawdown induced settlement and rock mass dilation can be managed through design. Ground movement impacts beyond FCIL owned land are likely to be negligible (less than 10 mm) and pose an acceptable (R1) level of risk to neighbouring land, and as such are less than minor and not significant. Stability within the Site is able to be managed through design to an acceptable level of risk (R1 or R2) and is also less than minor (not significant) subject to the implementation of a Trigger Action Response Plan. Continued monitoring and adaptive management will also be undertaken through the excavation phases to ensure that any emerging

geological or hydrogeological risks are effectively identified and remain acceptable (not significant) levels (R1 to R2).

- **Noise and Vibration:** The predicted construction noise levels will comply with the AUP limits in Chapter E25 of 70 dB L_{Aeq} and 85 dB L_{Amax} by significant margins. However, compliance with the QEL operational noise limits may not ensure that adverse noise effects will be avoided at houses constructed after 1 January 2001. Accordingly, alternative noise limits to the AUP standards H28.6.2.1 and H28.6.2.2 are proposed to apply to the proposed activities at Hunua Quarry. These will apply a single cumulative noise limit to all activities in the daytime and one set of noise limits at night, regardless of nature and location of the activity or when the receiver's house was constructed. As such, noise and vibration will be effectively managed to maintain existing amenity values, and noise and vibration effects associated with the construction and operation of the Project are considered unlikely to exceed a reasonable level and thus will be less than minor (not significant).
- **Ground Contamination:** Contamination is identified within a discrete area of the Project Footprint. Provided future works are undertaken in accordance with the proposed mitigation measures it is considered there is very low risk to human health and the environment and any adverse effects arising from potentially contaminated soils will not be significant.
- **Stream Alignment Works:** Subject to works being undertaken in accordance with the proposed engineering designs and the SRM, it is considered the proposed stream realignment will result in less than minor (not significant) adverse erosion, sediment and scouring effects and flooding effects.
- **Cultural Values:** the Project will be undertaken within an area with known cultural values and potential impacts on mana whenua and the environment will be managed as future works will be undertaken in accordance with the proposed mitigation measures set out in the conditions of consent. This includes ongoing partnerships and engagement, enabling mana whenua to be involved with the finalisation of management plans and the preparation of a cultural management plan. These measures will ensure that effects on cultural values can be managed to acceptable levels. Winstone will continue to engage with mana whenua incorporating further measures and mechanisms into the consent conditions and working with mana whenua to ensure their concerns are addressed to the extent practicable.
- **Climate Change and Natural Hazards:** While the Site is identified as being subject to flood and landslide susceptibility hazards, the proposal has been designed to appropriately accommodate potential hazard risks, taking into account changes in risk because of climate change. Overall, it is considered that the proposed quarry development will not generate significant adverse effects in terms of natural hazard risk and related outcomes, and positive effects on climate change through a reduction in transport related emissions.

Reflecting the avoidance, mitigation, management, compensatory and offsetting measures recommended throughout the specialist technical assessments undertaken to inform both project design and this AEE, a set of preliminary conditions has been proposed to ensure adverse effects are appropriately avoided, remedied or mitigated, or otherwise off-set. It is also proposed to impose a voluntary condition to address moderate-high (adverse) visual effects on identified private properties within Viewing Groups (S1, S2, W1 and W2). Under this approach,

the Applicant will offer to undertake off-site mitigation planting to affected landowners at the time the consent is granted to mitigate the adverse visual effects.

Winstone has obtained a number of written approvals. , when considering an application, have regard to any effect on a person who has given written approval to the application. The following persons who have provided their written approval is set out in section B1.6:

Considering the Project under Section 104 RMA:

- The Project will result in considerable positive effects providing for the foundational materials for buildings, development and maintenance of road and infrastructure. Aggregate given its foundational nature has a significant role in support development and renewal and contribute to the competitiveness of the regional economy as a whole. The project is aligned with delivering on priorities for both regional and central government scale projects. Assessed conservatively estimates of the regional economic benefits of the Project over its life has in excess of \$6633m (low estimate of savings, alongside the significant value added and employment impacts with the spend level required by the Project
- The Project has been designed to carefully manage adverse effects on the environment, whilst also recognising that some effects unavoidably result from the development of the Hunua Quarry. As such, the Project generally aligns well with the majority of regional and district plan objectives and policies contained in the AUP. However, the Project will modify the environment, including terrestrial and freshwater systems and within an ONL. As a result, there are several AUP provisions that the Project is less aligned with such as indigenous biodiversity and freshwater systems and the protection/avoidance of effects on the values of ONLs, when read in isolation.
- Where adverse effects cannot be avoided, then they have been remedied, mitigated, offset or compensated, where feasible and practicable. Specifically, residual adverse effects on freshwater and terrestrial ecology are proposed to be offset and compensated through a comprehensive ecological package designed to achieve no net loss, and where possible to achieve a net ecological gain.
- Overall, the Project will provide for the development of an existing regionally important aggregate resource, which will directly support the growth of Auckland. The Project has applied the mitigation hierarchy with avoidance and mitigation being the first priorities, supplemented by an ecological compensation and enhancement package to manage residual effects. As such, when considered in the context of broader mineral extraction directives of the AUP and the recognition of their potential to result in the loss of natural areas, the Project remains broadly consistent with the objectives and policies of the AUP.

Through a variety of hui, workshops, site visits, written correspondence and formal meetings, Winstone has engaged with FTAA listed parties, relevant local authorities, administering agencies, affected neighbours and other adjacent landowner/occupiers, and potentially affected bore permit holders. Significant consultation has also occurred, and continues, with Mana Whenua, including receiving and taking into consideration received CVAs. Where possible Winstone has sought to address known and identified project impacts raised during stakeholder and Mana Whenua engagement and consultation and is committed to continuing to engage with stakeholders and Mana Whenua throughout the consenting, construction and operational phases of the Project.

This Project is integral to the Auckland region meeting its ongoing demand for construction materials, as the Auckland region continues to grow and replace/revitalise its infrastructure. Overall, the Project fulfils the intent and purpose of the FTAA and Parts 2, 3 and 6 of the Resource Management Act 1991 (RMA) in that it will allow for the further development and operation of a strategically important and environmentally sustainable quarry, securing a future supply of high-quality aggregate to the region, while also realising significant economic and community benefits.

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Abbreviations

Abbreviation	Definition
AC	Auckland Council
AEE	Assessment of Effects on the Environment
AEP	Annual Exceedance Probability
AFSRP	Aquatic Fauna Salvage and Relocation Plan
AQMP	Air Quality Management Plan
AMP	Archaeological Management Plan
ANZECC	Australian and New Zealand Environment and Conservation Council
ARI	Average Recurrence Interval
AS2187.2:2006	Australian Standard AS2187.2:2006 Explosives – Storage and Use, Part 2: Use of Explosives
AUP	Auckland Unitary Plan – Operative in Part
AUP RPS	Auckland Unitary Plan – Operative in Part Regional Policy Statement
AWS	Automatic Weather Station
BCM	Biodiversity Compensation Model
BOAM	Biodiversity Offset and Accounting Model
CTMP	Chemical Treatment Management Plan
ONMP	Operational Noise Management Plan
CSMP	Contaminated Site Management Plan
CVA	Cultural Values Assessment
DEB	Decanting Earth Bund
DSI	Detailed Site Investigation
EcMP	Ecological Management Plan
ED	Ecological District
eDNA	Environmental DNA
EIA	Economic Impact Assessment
EPT fauna	Ephemeroptera (mayfly), Plecoptera (stonefly) and Trichoptera (caddisfly)

Abbreviation	Definition
ESC	Erosion and Sediment Controls
ESCAR	Erosion and Sediment Control Assessment Report
ESCP	Erosion and Sediment Control Plan
FCIL	Fletcher Concrete and Infrastructure Limited
FTAA	Fast-track Approvals Act 2024
FTAAA	Fast-track Approvals Amendment Act 2025
GD05	Auckland Council Guideline Document 2016/005 (GD05): Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region
GMCP	Groundwater Monitoring and Contingency Plan
HAIL	Hazardous Activities and Industries List
ITA	Integrated Transport Assessment
IUCN	International Union for the Conservation of Nature
LERSMP	Landscape Mitigation and Ecological Mitigation and Enhancement Plan
LMP	Lizard Management Plan
LOQ	Life of Quarry
MALF	Minimum Annual Low Flow.
MCI	Macroinvertebrate Community Index.
m ³ /d	Metres cubed per day
MIC	Maximum Instantaneous Charge
NES	National Environmental Standard
NES-AQ	National Environmental Standard for Air Quality 2021
NES-CS	National Environmental Standards for Contaminated Land 2011
NES-F	National Environmental Standards for Freshwater 2020
NPS-FM	National Policy Statement for Freshwater Management 2020 (as amended in October 2024)
NPS-HPL	National Policy Statement for Highly Productive Land 2022
NPS-IB	National Policy Statement for Indigenous Biodiversity 2023

Abbreviation	Definition
NOF	National Objectives Framework
NZAA	New Zealand Archaeological Association
ONL	Outstanding Natural Landscape
ONMP	Operational Noise and Vibration Management Plan
PMP	Pest Management Plan
PSI	Preliminary Site Investigation
RAP	Remedial Action Plan
QEL	Quarry Effects Line (refer AUP H28 Special Purpose – Quarry Zone Figure H28.6.2.1.1 for extent)
QMCI	Quantitative Macroinvertebrate Community Index
QMP	Quarry Management Plan
RMA	Resource Management Act 1991
SEA	Significant Ecological Area
SEV	Stream Ecological Valuation
SESCP	Specific Erosion Sediment Control Plan
SPQZ	Special Purpose - Quarry Zone
SQEP	Suitably Qualified and Experienced Practitioner
SRP	Sediment Retention Pond
SSMP	Slope Stability Management Plan
TMPD	Truck Movements per Day
TSP	Total Suspended Particulate
Ug/m ³	Micrograms per cubic meter
US EPA	United States Environment Protection Agency
WCM	Waikato Coal Measures
ZOI	Zone of Influence

Glossary

Key project terms	
Construction works	Construction works include: enabling works/activities such as vegetation clearance, haul road construction, culvert and bridge construction and stream realignment, and rehabilitation activities such as backfilling the quarry pit with overburden, deconstructing noise bunds, geotechnical works to alter quarry slopes, planting backfilled areas and pest management.
Ecological District	An ecological district is a local part of New Zealand where the geology, topography, climate, plants and animals interrelate to produce a characteristic landscape and range of ecosystems.
Hunua Quarry (the Site) ¹	Is the land identified as “the site” in drawing Appendix B12.2b , Figure 1 prepared by Boffa Miskell Limited.
Hunua Pit Overburden Disposal Area and Managed Fill	The areas of overburden disposal and managed fill placement associated with the rehabilitation of the Hunua Pit, located within the site. Predominantly accepts overburden material from the Symonds Hill Pit that is supplemented with managed fill from pre-approved sites. Concrete recycling and processing of lower grade materials also occurs in this area.
Project	Means the extraction, processing (including crushing, screening, washing, and blending), transport, storage, sale and recycling of aggregates (clay, silt, rock, sand), the stripping and deposition of overburden material, rehabilitation, landscaping and cleanfilling of the quarry, the use of land and accessory buildings for offices, workshops and car parking areas associated with the operation of the quarry, the construction and use of internal roads, and all ancillary activities described in the Application such as the removal of streams, the take and diversion of water and groundwater, the removal of vegetation, and the restoration and enhancement of vegetation within the Site.
Project footprint	The areas where works are anticipated associated with the project.
Project listing	The project description as listed in the FTAA, Schedule 2: <i>“Expand the existing quarry to increase annual quarry production to approximately 5.4 million tonnes of aggregate, and to enable the extraction of aggregate for a further 80 years”</i>
Quarry Development Area	The areas, located within the site, where Project works such as stream diversion and mineral extraction and all

¹ The Site at which the activity is to occur in accordance with Schedule 5, Clause 5(1)(b) of the FTAA.

Key project terms	
	other necessary activities to enable the further development of the Hunua Quarry Symonds Hill Pit.
Stockyard and Processing Area	The areas of the existing operation, located within the site, which support the broader quarry operation and includes Firth Concrete Block Plant and Winstone Aggregates Lab. This area will serve the proposed increased mineral extraction activity.
Winstone Aggregates or Winstone	Winstone Aggregates (a division of Fletcher Concrete and Infrastructure Limited) and is the authorised person for the purposes of the Schedule 2 listing.
Site description	
Coal Mine Bore	Is the feature identified as “Coal Mine Bore / Augmentation Bore” in drawing “Existing Quarry Operations” prepared by Boffa Miskell Limited at Appendix B12.2b Location Plans, Figure 6.
FCIL landholdings	The wider landholdings owned by Fletcher Concrete and Infrastructure Limited which encompasses an area of approximately 260 ha. The landholdings include the site and its quarry activities, a clean fill, OBDA and areas of native vegetation.
Hay Paddock	Closed overburden disposal area authorised under ENVA077/05. Is the land identified as “Hay Paddock” in drawing “Existing Quarry Operations” prepared by Boffa Miskell Limited at Appendix B12.2b Location Plans, Figure 6.
Waipokapū Stream / Hays Stream (“Waipokapū Stream”)	The stream located to north of the site and separated by Hunua Road
Hunua Pit	Is the land identified as “Hunua Overburden Disposal and Managed Fill” in drawing “Existing Quarry Operations” prepared by Boffa Miskell Limited at Appendix B12.2b Location Plans, Figure 6.
RL 110 Pond	Is the feature identified as “RL110 Pond” in drawing “Existing Quarry Operations” prepared by Boffa Miskell Limited at Appendix B12.2b Location Plans, Figure 6.
RL150 Pond	Is the feature identified as “RL150 Pond” in drawing “Existing Quarry Operations” prepared by Boffa Miskell Limited at Appendix B12.2b Location Plans, Figure 6.
Symonds Hill Pit	Is the feature identified as “Approved Pit Extent (refer RC8730 and COC2889)” in drawing “Approved Pit Extent vs Proposed Pit Extent” prepared by Boffa Miskell Limited at Appendix B12.2b Location Plans, Figure 7.

Key project terms	
Mangapū Stream / Symonds Stream (“Mangapū Stream”)	The stream located to the south of the site and includes tributaries within the site area. Is the feature identified as “Mangapū Stream” in drawing “Catchment and Hydrology” prepared by Boffa Miskell Limited at Appendix B12.2b Location Plans, Figure 9.
Mangapū Tributary	The tributary to the Mangapū Stream that is to be relocated to enable quarrying activities to be undertaken to the southwest of the Symonds Hill Pit. Is the feature identified as “Mangapū Stream Tributary” in drawing “Catchment and Hydrology” prepared by Boffa Miskell Limited at Appendix B12.2b Location Plans, Figure 9.
General terms	
Application	Means the application and assessment of environmental effects lodged with the Environmental Protection Authority on 31 March 2026 and the applicant's responses to requests for further information.
Lamella	Quarry process water sediment removal device.
Life of Quarry	Approximate area of the project over an approximate 80-year period.
Overburden	Topsoil and other subsurface material removed to access aggregate.
Sediment Control	Capturing sediment that has been eroded and entrained in overland flow before it enters the receiving environment.
Significant Ecological Area	Terrestrial area identified as significant indigenous vegetation or significant habitats of indigenous fauna located either on land or in freshwater environments (UNITARY PLAN D.9 Significant Ecological Areas Overlay).
Watercourse	A natural or artificial channel through which water flows.
Zone of Influence	The areas/resources that may be affected by the biophysical changes caused by the proposed Project and associated activities, particularly adjoining or connected terrestrial, freshwater and wetland habitats and associated native species.

B1. Introduction

1. This substantive application and AEE is submitted in support of Winstone Aggregates' (Winstone) (a division of Fletcher Concrete and Infrastructure Limited) (FCIL) proposal for the development of the Hunua Quarry. The "Hunua Quarry Development" is a listed project under Schedule 2 of the FTAA. This application is made in accordance with the FTAA instead of the RMA.
2. 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 A6.3** to the substantive application.
3. 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 A3**).
4. 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.
5. Winstone owns and operates Hunua Quarry, located approximately 5 km east of Papakura and 35 km southeast of Auckland's CBD. The Quarry has operated for about 100 years (80 of those by Winstone) and is recognised as one of Auckland's three most strategically important sources of aggregate, producing high-quality greywacke. It produces a range of aggregate grades used in the manufacture of concrete, asphalt, and roading materials and supports regional infrastructure projects of national importance such as Auckland Airport and the state highway network.
6. Hunua Quarry comprises the Hunua Pit and the Symonds Hill Pit within a landholding of 360 hectares. This landholding includes quarry extraction activities, quarry processing activities, cleanfill and managed fill operations and areas of indigenous vegetation.
7. Symonds Hill Pit started operating in 2014 when backfilling of the original Hunua Pit commenced using overburden from the Symonds Hill operations and managed fill brought to the Site. The current consents provide for the extraction of approximately 15-20 million tonnes, at an average of 3 million tonnes per year.
8. The greywacke resource extracted at Symonds Hill Pit is processed to produce aggregate for use in building, construction and roading projects. The transformation of rock resource into aggregate products requires a number of operations including the stripping of overburden (soils and low quality material) overlying the rock resource, the loosening and fragmenting of the rock from the ground with the use of explosives and/or heavy machinery, the excavation of rock by heavy machinery and transportation to the processing plant for further crushing and screening into various sizes and grades for sale.
9. Where excavation of rock resource occurs below the groundwater level, the quarry pit must be pumped to obtain dry conditions to enable quarrying of the aggregate resource. Extraction below the groundwater table enables a greater volume of material to be quarried from within the same disturbed footprint area. At Symonds Hill Pit, this means that Winstone can avoid clearing much of the indigenous vegetation that remains, and has been planted by Winstone, on the Site.

10. Initial investigations at Symonds Hill Pit have identified that there is considerable resource still available: based on current rates of demand and constraints at the Site, it is more than 80 years of supply. Winstone are therefore seeking resource consents and permits to develop the existing Symonds Hill Pit to secure access to additional high-quality greywacke resource, enabling production to increase to a maximum of 5.4 million tonnes of aggregate per year.
11. The current site lies within the Special Purpose – Quarry Zone (SPQZ) under the Auckland Unitary Plan (Operative in Part) and encompasses a well-established quarrying and processing complex. It is intended to extend the quarry into the adjoining Rural – Mixed Rural Zone to the west. This land is also identified as an Outstanding Natural Landscape (Area 60 Ponga Road) and a number of Significant Ecological Areas (SEA) intersect with the Site including SEA_T_5323, SEA_T_7032, SEA_T_7033. The Mangapū Stream and the Mangapū Tributary are identified as being within a Natural Stream Management Area Overlay and Significant Ecological Area (SEA_T_5323) Overlay in the AUP.
12. This substantive application seeks the approvals necessary to enable access to the long-term resource. Land use consents (which are to apply in perpetuity) are sought to enable access to that resource over the extended life of the Symonds Hill Pit providing for excavation of aggregate, and all supporting quarry infrastructure required to set the quarry up for 80 years and beyond, as well as activities necessary to run the quarry i.e. processing, overburden, quarry operations, transport /access and ancillary/related activities.
13. The Project will also provide for operational re-configuration of key elements of the quarry. This involves the construction of a new haul road to the northwest of the pit including the culverting of two tributaries to the Mangapū Stream (referred to as Tributary 3 and 4), as well as the reclamation of a larger tributary to the southeast (Mangapū Tributary) and the reconstruction of the stream bed and habitat to the west of its current location. It will also seek to improve water management, stream health, and environmental performance.
14. The current Auckland market is characterised by demand exceeding supply, requiring aggregate to be imported from quarries in Northland and Waikato. However, these imports impose higher delivered costs and distance-related externalities. This Project is integral to the Auckland region meeting its ongoing demand for construction materials, as it will secure continued access to a proven greywacke resource through development of an existing quarry, supporting long-term supply continuity, reducing reliance on long-distance transport, and enabling more efficient and resilient delivery of housing and infrastructure.

B1.1 Project Overview

15. This substantive application seeks all approvals required to authorise the Hunua Quarry Development (the Project). In accordance with s42(4), the application includes approvals for the following:
 - resource consents required under the Resource Management Act 1991 (Schedule 5);
 - changes and cancellations of existing consent conditions where these are material to the implementation or delivery of the project, (Schedule 5);
 - subdivision consent for a boundary adjustment (Schedule 5);
 - a Wildlife Act approval (Schedule 7);

- an Archaeological Authority under the Heritage New Zealand Pouhere Taonga Act (Schedule 8), and
 - a Complex Freshwater Fisheries approval under the Freshwater Fisheries Regulations 1983 (Schedule 9).
16. A full register of the resource consents and approvals sought is provided in Part A – Overview Report with cross references to the AEE sections, technical reports, and the consolidated conditions.
17. The scope of approvals sought aligns directly with the Schedule 2 listed project and meets the requirements of s42(3), s42(6), s42(7), and s43(6).
18. Legal descriptions of all parcels, including titles and encumbrances, are provided in **Appendix A6.9**. Mapping requirements under s13(4)(d) and Sch.5(1)(b) are met through the Project Description figures in **Appendix B12.3a** and statutory acknowledgement overlays in **Appendix A6.10**.
19. Table 1 below provides details on the applicant, property and application contact details.

Table 1: Applicant and property details

Applicant's Name:	Winstone Aggregates (a division of Fletcher Concrete and Infrastructure Limited) and is the authorised person for the purposes of the Schedule 2 listing.
Owner and Occupier of the application site:	Winstone Aggregates (a division of Fletcher Concrete and Infrastructure Limited)
Site Area:	260.0269 ha
Site Address and legal description (Record of Title):	<u>489 Hunua Road</u> Lot 2 Deposited Plan 55769 (RT NA8A/243) Part Allotment 79 Parish of Hunua (RT NA576/104) Part Allotment 79 Parish of Hunua (RT NA576/105) Allotment 345 Hunua Parish (RT NA28A/1311) <u>499 Hunua Road</u> Lot 1 Deposited Plan 105061 (RT NA57D/1355) <u>0 Middleton Road (was paper road)</u> Section 1 Survey Office Plan 417727 (484772) <u>165 Middleton Road</u> Lot 5 DP 152736 (RT NA91A/948) <u>193 Middleton Road</u> Lot 1 Deposited Plan 120541 (NA69D/366) <u>255 Middleton Road</u> Lot 1 Deposited Plan 60065 (NA18D/1181) <u>101 Coalmine Road</u> Allotment 38 Parish of Hunua (NA575/139)
District and Regional Council Plan:	Auckland Unitary Plan – Operative in Part (15 November 2016) (AUP)

Operative Plan: AUP zones, overlays, designations (refer to the location plans in Appendix B12.2b for details on the location of the AUP zones, overlays and designations relative to the site):	<u>Zones:</u> • Special Purpose – Quarry Zone • Rural – Mixed Rural Zone <u>Overlays:</u> • Infrastructure – Quarry Buffer Area overlay • Natural Heritage: Outstanding Natural Landscape (ONL) – Area 60: Ponga Road • Natural Resources: Significant Ecological Areas (SEA) overlay – SEA_T_5323, SEA_T_7032, SEA_T_7033 • Natural Resources: Natural Stream Management Area Overlay <u>Designations:</u> • Airspace Restriction Designations - ID 200, Ardmore Airport - Height Restrictions, Ardmore Airport Ltd
Proposed Plan: Plan Change 120 notified 3 November 2025 (PC120)	<u>Changes to Chapters with immediate legal effect (refer RMA Section 86B(3)) and relevant to the proposal include:</u> • E12. Land disturbance – District • E15. Vegetation management and biodiversity • E36. Natural hazards and flooding • J1 – Definitions • Appendix 24 - Landslide hazard risk assessment methodology (Note: zoning of the site and adjacent land is unaffected by PC120)
Address for service during FTAA processing:	Boffa Miskell Limited 82 Wyndham Street Auckland 1010 Attention: Nick Pollard – Planning Lead Email: nick.pollard@boffamiskell.co.nz
Address for service during consent implementation and FTAA invoicing:	Winstone Aggregates PO Box 17 195 Greenlane Auckland Attention: Phil Heffernan - Winstone Project Manager Email: Phil.Heffernan@winstoneaggregates.co.nz

B1.2 Overview of Resource Consent Requirements

20. The resource consents sought to enable the Project are assessed in Section B4 and listed in Tables 2, 3 and 4 below. **Table 5** summarises approved resource consents that need to be amended as they are material to the implementation of the project. **Appendix B12.10** contains a complete assessment of the Project against the relevant rules in the AUP and the relevant national environmental standards.

21. It is our understanding that no additional consents are required, however, if further consent matters are identified post-lodgement of the application, these should also be considered as forming part of the application.
22. Overall, resource consent is required as a non-complying activity under the AUP but is not subject to a s104(d) RMA assessment as set out under clause 17 (1) (b), Schedule 5 of the FTAA. It is also advised that, where an activity has been identified as Controlled or Restricted Discretionary, the technical reports and assessment of effects have addressed the matters of control and discretion as listed in the AUP. These are not specifically identified given the non-complying status of the Project but have been given due consideration.

Table 2: Summary of resource consents required under the AUP in order of plan chapters and including PC120 provisions with immediate legal effect.

Rule Reference and summary description	Activity status
E3.4.1 (A19) Diversion of a river or stream to a new course and associated disturbance and sediment discharge in the SEA and ONL overlays.	Non-complying activity
E3.4.1(A29) Bridges or pipe bridges complying with the standards in E3.6.1.16 in the SEA and ONL overlays.	Discretionary activity
E3.4.1(A33) Culverts or fords more than 30m in length when measured parallel to the direction of water flow outside of the SEA and ONL overlays.	Discretionary activity
E3.4.1(A49) New reclamation or drainage, including filling over a piped stream in the SEA and ONL overlays.	Non-complying activity
E4.4.1(A15) Discharge of water or contaminants onto or into land and/or into water not complying with the relevant standards or not otherwise provided for by a rule in the Plan	Discretionary activity
E7.4.1 (A9) Take and use of surface water, including dams not meeting the permitted activity, controlled activity or restricted discretionary activity standards or otherwise not listed.	Discretionary activity
E7.4.1 (A20) Dewatering or groundwater level control associated with a groundwater diversion authorised as a restricted discretionary activity, not meeting permitted activity standards or is not otherwise listed.	Restricted discretionary activity
E7.4.1 (A26) take and use of groundwater not meeting the permitted activity or restricted discretionary activities standards or not otherwise listed.	Discretionary activity
E7.4.1 (A28) diversion of groundwater caused by excavation (including trench) or tunnel that does not otherwise meet the permitted activity standards or not otherwise listed	Restricted discretionary activity
E8.4.1(A10) All other diversion and discharge of stormwater runoff from impervious areas not otherwise provided for.	Discretionary activity
E11.4.1 (A8): Greater than 2,500m ² where the land has a slope equal to or greater than 10 degrees in the Rural – Mixed Rural zone.	Restricted discretionary activity

Rule Reference and summary description	Activity status
E11.4.1 (A9): Greater than 2,500m ² within the sediment control protection area in the Rural – Mixed Rural zone.	Restricted discretionary activity
E11.4.3 Land disturbance not otherwise listed in this table - E11.4.3 (A28) Greater than 5m² and - E11.4.3 (A30) Greater than 5m³ In the Significant Ecological Areas Overlay	Restricted discretionary activity
E12.4.1 General earthworks not otherwise listed in this table (A6) greater than 2,500m² and (A10) greater than 2,500m³ In the Rural – Mixed Rural zone. (Note: E12 does not apply in the SPQZ)	Restricted discretionary activity
E12.4.2 Activity table – overlays: (A30) Greater than 50m² and (A33) Greater than 250m³ In the Outstanding Natural Landscape overlay.	Restricted discretionary activity
E12.6.2 General standards require and land disturbance within a riparian yard, where it does not relate to operation, maintenance or repair works to not exceed 5m ² and 5m ³ of general earthworks. The Project cannot comply with this standard and resource consent is required under Rule C1.9(2).	Restricted discretionary activity
E4.4.1(A91) Mineral extraction activities at a rate exceeding 200 tonnes/hour from any one quarrying process in a Low air quality - dust and odour area (Quarry).	Controlled activity
E14.4.1(A91) Mineral extraction activities at a rate exceeding 200 tonnes/hour from any one quarrying process in a Medium air quality – dust and odour rural area (Rural)).	Discretionary activity
E15.4.1 (A10) Vegetation alteration or removal, including cumulative removal on a site over a 10 year period, of greater than 250m² of indigenous vegetation that: (a) is contiguous vegetation on a site or sites existing on 30 September 2013; and (b) is outside the rural urban boundary.	Restricted discretionary activity
E15.4.1 (A12) Vegetation alteration or removal of any vegetation within a Natural Stream Management Areas Overlay.	Restricted discretionary activity
E15.4.1 (A16) Vegetation alteration or removal within 20m of rural streams within the SPQZ.	Restricted discretionary activity

Rule Reference and summary description	Activity status
E15.4.1 (A17) Vegetation alteration or removal within 10m of rural streams in the Rural Mixed Zone.	Restricted discretionary activity
E15.4.1 (A18) Vegetation alteration or removal within 20m of a natural wetland, in the bed of a river or stream (permanent or intermittent), or lake.	Restricted discretionary activity
E15.4.2 (A28) Vegetation alteration or removal of greater than 50m ² of any contiguous indigenous vegetation in the ONL overlay	Restricted discretionary activity
E15.4.2 (A43) Vegetation alteration or removal in an SEA outside the SPQZ.	Discretionary activity
E15.4.2 (A44) Any vegetation alteration or removal in an SEA within the SPQZ.	Restricted discretionary activity
E25.4.1 (A2) Activities that do not comply with a permitted activity standard – assessed as restricted discretionary	Restricted discretionary activity
E36.4.1A (A98) All other structures and buildings (including retaining walls) in the 1 per cent annual exceedance probability (AEP) floodplain and flood prone areas	Restricted discretionary activity
E36.4.1B (A128) All other buildings and structures, including retaining walls, in landslide hazard risk areas that comply with Standard E36.6.A1	Restricted discretionary activity
E39.4.1(A10) Boundary adjustments unable to comply with controlled activity rule and standards in E39.6.3.2 and E39.6.3	Discretionary activity
H19.8.1(A60) Mineral extraction activities	Discretionary activity
H28.4.1(A7) Mineral Extraction Activities	Controlled activity
H28.4.2 (A14) Greater than 2500m ²	Controlled activity
H28.4.2(A15) Greater than 2500m ³	Controlled activity
H28.4.2(A16) Greater than 10,000m ³ where land has a slope less than 10 degrees and is outside the Sediment Control Protection Area	Controlled activity
H28.4.2(A17) Greater than 10,000m ³ where the land has a slope equal to or greater than 10 degrees	Controlled activity
H28.4.2(A18) Greater than 2,500m ³ within the Sediment Control Protection Area.	Controlled activity
H28.6.2.1 Noise - Controlled activity standards (1) Noise from mineral extraction activities must not exceed the noise levels in Table H28.6.2.1.1 at a notional boundary from any dwelling that existed at 1 January 2001 outside the Special Purpose – Quarry Zone	Restricted discretionary activity

Rule Reference and summary description	Activity status
(2) Noise from mineral extraction within the Hunua Quarry must not exceed the noise limits in Table H28.6.2.1.2 at the quarry effects line as identified in Figure H28.6.2.1.1. The Project cannot comply with these controlled activity standards and resource consent is required under Rule C1.9(2).	
H28.6.2.2. Vibration and blasting - Controlled activity standards. The Project cannot comply with this controlled activity standard and resource consent is required under Rule C1.9(2).	Restricted discretionary activity
H28.6.2.7 Land disturbance a Quarry Management Plan must be submitted that includes the matters at H28.6.2.7(1)(a) – (c)	Controlled activity
E27.4.1(A2) Parking, loading, access and Electric Vehicle Supply Equipment which is an accessory activity but which does not comply with the standards for parking, loading, access and Electric Vehicle Supply Equipment. The crossing width is proposed to be 17m at the road boundary, which exceeds the maximum 9m width permitted when accommodating large heavy vehicles pursuant to E27.6.4.2(2)	Restricted discretionary activity
Rule C1.9(2) Non-compliance with E27.6.1(1) Trip Generation standards. The proposal will generate a maximum of 161 truck movements at AM peak hour, exceeding the 100v/hr (any hour) traffic generation threshold. The proposed mineral extraction activity is a restricted discretionary activity under H19.8.1(A60) and there is no requirement to assess transport or trip generation effects	Restricted discretionary activity

Table 3: Summary of resource consents required under the NES-F.

Rule Reference and summary description	Activity status
Regulation 45A Discretionary activities (1) Vegetation clearance within, or within a 10 m setback from, a natural inland wetland is a discretionary activity if it is for the purpose of quarrying activities. (2) Earthworks or land disturbance within, or within a 10 m setback from, a natural inland wetland is a discretionary activity if it is for the purpose of quarrying activities. (3) Earthworks or land disturbance outside a 10 m, but within a 100 m, setback from a natural inland wetland is a discretionary activity if it— (a) is for the purpose of quarrying activities; and (b) results, or is likely to result, in the complete or partial drainage of all or part of the wetland. (4) The taking, use, damming, or diversion of water within, or within a 100 m setback from, a natural inland wetland is a discretionary activity if— (a) the activity is for the purpose of quarrying activities; and (b) there is a hydrological connection between the taking, use, damming, or diversion and the wetland; and (c) the taking, use, damming, or diversion will change, or is likely to change, the water level range or hydrological function of the wetland.	Discretionary activity
Regulation 57 Discretionary activities the reclamation of the bed of any river is a discretionary activity.	Discretionary activity

Regulation 71 Discretionary activities the placement, use, alteration, extension, or reconstruction of a culvert in, on, over, or under the bed of a river is a discretionary activity if it does not comply with any of the conditions in regulation 70(2).	Discretionary activity
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Table 4: Summary of resource consents required under the NES-CS.

Rule Reference and summary description	Activity status
Regulation 9 Removing or replacing fuel storage system, sampling soil, or disturbing soil	Controlled activity

Table 5: Summary of variations required to existing approved resource consents

Rule Reference and summary description	Activity status
<u>Auckland Council Reference:</u> <u>34131 / DIS60362882 - Symonds Pit</u> Authorises the discharge of groundwater and surface water from a quarry pit (a quarry pit dewatering pond approximately 500m south of Middleton Road, Drury) to the Symonds Stream. A s127 application is required to vary the conditions of consent DIS60362882 to enable works to proceed in the location of the pond.	Discretionary activity
<u>Auckland Council Reference:</u> <u>8730 - Symonds Pit</u> EC decision/Consent Order. Authorises vegetation removal and associated revegetation activities (including the/replacement planting of 39.9ha of indigenous forest and habitat and establishing conservation covenants on certain properties s77 of the Reserves Act). A s127 application will be made to change conflicting planting requirements located within the footprint of the Hunua Quarry Development area. Requires amendments to Condition 6 and related requirements to covenant the planted areas.	

B1.3 Bundling

23. As the quarry and associated activities will operate as one integrated site, and all components of the quarry operations that require consent are interconnected, it is appropriate that the consents are bundled for the application and assessment purposes and that an overall assessment of the application is made as a non-complying activity. However, as noted above, whilst the proposal is a non-complying activity, under Clause 17(1)(b), Schedule 5 of the FTAA, a s104(D) assessment is not required.

B1.4 Consent Duration and Lapse Period

24. To enable the long-term planning of mineral extraction activities, reflect the level of investment required and to ensure certainty of aggregate supply to the Auckland market, Winstone seeks:
- Land use consents (earthworks, vegetation clearance and the disposal of overburden) in perpetuity (unlimited duration), and

- Water take and use and all discharge permits with a 35-year duration.

25. The default period of five years is sought as the lapse period for the consents.

B1.5 Application Under the Fast-Track Approvals Act

26. The Project is being advanced under the Fast-track Approvals Act 2024 (FTAA) as a Listed Project, reflecting its regional and national significance. The listing for the project in the FTAA is:

Hunua Quarry Development	Expand the existing quarry to increase annual quarry production to approximately 5.4 million tonnes of aggregate, and to enable the extraction of aggregate for a further 80 years	489 Hunua Road, Hunua, 5 kilometres southeast of Papakura, South Auckland
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27. This substantive application, submitted to the Expert Panel for determination, seeks the approvals necessary to enable access to the long-term greywacke resource found at Hunua Quarry. Land use consents (which are to apply in perpetuity) are sought to enable access to that resource over the extended life of the Symonds Hill Pit providing for excavation of aggregate for 80 years and beyond, as well as associated activities necessary to run the quarry i.e. processing, overburden, quarry operations, transport /access and ancillary/related activities.

28. All other regional consents are sought for the maximum term available under the RMA of 35 years, recognising that further replacement regional consents will be required for the Quarry throughout that period (every 35 years) including for bulk earthworks.

B1.6 Written Approvals

29. Written Approvals to the application have been given by the following persons:

	Name	Property Address	Legal Description and area (m ²)	Owner / Occupier
1.	Fletcher Concrete and Infrastructure Limited	369 Hunua Road	Fee Simple, 1/1, Lot 1 Deposited Plan 152882, 13,700 m ²	Owner
			Fee Simple, 1/8, Lot 5 Deposited Plan 145514, 2,913 m ²	Occupier
2.	Fletcher Concrete and Infrastructure Limited	397 Hunua Road	Fee Simple, 1/1, Lot 4 Deposited Plan 152882, 26,459 m ² Fee Simple, 1/4, Lot 5 Deposited Plan 145514, 2,913 m ²	Owner

	Name	Property Address	Legal Description and area (m ²)	Owner / Occupier
3.	Fletcher Concrete and Infrastructure Limited	411 Hunua Road	Fee Simple, 1/1, Lot 1 Deposited Plan 197292, 19,859 m ²	Owner
				Occupier
4.	Fletcher Concrete and Infrastructure Limited	480-486 Hunua Road	Fee Simple, 1/1, Lot 1 and Lot 4 Deposited Plan 142912, 14,784 m ² Fee Simple, 1/6, Lot 3 Deposited Plan 142912, 4,660 m ² Fee Simple, 1/1, Lot 1 Deposited Plan 204931, 20,027 m ² Fee Simple, 1/1, Lot 2 Deposited Plan 204931, 171,763 m ²	Owner
5	Fletcher Concrete and Infrastructure Limited	489 Hunua Road	Fee Simple, 1/1, Lot 2 Deposited Plan 55769, 125,908 m ²	Owner
6.	Fletcher Concrete and Infrastructure Limited	490 Hunua Road	Fee Simple, Lot 1 Deposited Plan 59628, 9,598m ²	Owner
7.	Fletcher Concrete and Infrastructure Limited	499 Hunua Road	Fee Simple, 1/1, Lot 1 Deposited Plan 105061, 235,247 m ²	Owner
8.		105 Judge Richardson Drive	Fee Simple, Lot 32 Deposited Plan 362339, 32,340 m ²	Owners and Occupiers
9.	Fletcher Concrete and Infrastructure Limited	106 Judge Richardson Drive	Fee Simple, 1/10, Lot 34 Deposited Plan 362339, 4,027 m ² Fee Simple, 1/1, Lot 17 Deposited Plan 362339, 14,755 m ²	Owner

	Name	Property Address	Legal Description and area (m ²)	Owner / Occupier
10.	Fletcher Concrete and Infrastructure Limited	108 Judge Richardson Drive	Fee Simple, 1/10, Lot 34 Deposited Plan 362339, 4,027 m ² Fee Simple, 1/1, Lot 18 Deposited Plan 362339, 28,185 m ²	Owner
11.	[REDACTED]	115 Judge Richardson Drive	Fee Simple, Lot 31 Deposited Plan 362339, 20,235 m ²	Owners and Occupiers
12.	Fletcher Concrete and Infrastructure Limited	118 Judge Richardson Drive	Fee Simple, 1/10, Lot 34 Deposited Plan 362339, 4,027 m ² Fee Simple, 1/1, Lot 20 Deposited Plan 362339, 23,590 m ²	Owner
13.	Fletcher Concrete and Infrastructure Limited	119 Judge Richardson Drive	Fee Simple, Lot 30 Deposited Plan 362339, 19,500 m ²	Owner
	[REDACTED]			Occupier
14.	Fletcher Concrete and Infrastructure Limited	195 Judge Richardson Drive	Fee Simple, 1/10, Lot 33 Deposited Plan 362339, 4,220 m ² Fee Simple, 1/1, Lot 29 Deposited Plan 362339, 22,715 m ²	Owner
15.	Fletcher Concrete and Infrastructure Limited	161 Middleton Road	Fee Simple, Lot 4 Deposited Plan 152736, 10,000 m ²	Owner
	[REDACTED]			Occupier
16.	[REDACTED]	163 Middleton Road	Fee Simple, 1/1, Lot 6 Deposited Plan 152736, 537,330 m ²	Owners and Occupiers
17.	Fletcher Concrete and Infrastructure Limited	165 Middleton Road	Fee Simple, 1/1, Lot 5 Deposited	Owner

² Private agreement has been reached with [REDACTED]. Written approval is to be provided.

	Name	Property Address	Legal Description and area (m ²)	Owner / Occupier
		165/168 Middleton Road	Plan 152736, 25,490 m ²	Occupier
18.		167 Middleton Road	Fee Simple, Lot 2 Deposited Plan 120541, 29,905 m ²	Owners and Occupiers
19.	Fletcher Concrete and Infrastructure Limited	180 Middleton Road	Fee Simple, 1/1, Lot 1 Deposited Plan 109558, 9,677 m ²	Owner
20.	Fletcher Concrete and Infrastructure Limited	193 Middleton Road	Fee Simple, 1/1, Lot 1 Deposited Plan 120541, 28,220 m ²	Owner
21.	Fletcher Concrete and Infrastructure Limited	255 Middleton Road	Fee Simple, 1/1, Lot 1 Deposited Plan 60065, 523,056 m ²	Owner
22.	Fletcher Concrete and Infrastructure Limited	101 Coal Mine Road	Fee Simple, 1/1, Allotment 38 Parish of Hunua, 435,037 m ²	Owner
23.	Fletcher Concrete and Infrastructure Limited		Fee Simple, 1/1, Part Allotment 79 Parish of Hunua, 1,012,283 m ²	Owner
24.	Fletcher Concrete and Infrastructure Limited		Fee Simple, 1/1, Allotment 345 Hunua Parish, 1,196 m ²	Owner
25.	Fletcher Concrete and Infrastructure Limited		Fee Simple, 1/1, Section 1 Survey Office Plan 417727, 9,939 m ²	Owner
26.	Fletcher Concrete and Infrastructure Limited		Fee Simple, 1/1, Lot 2 Deposited Plan 115598, 179,700 m ²	Owner
27.	Fletcher Concrete and Infrastructure Limited		Fee Simple, 1/1, Part Allotment 79 Parish of Hunua, 24,193 m ²	Owner

28		610 Ponga Road	Fee Simple, Lot 7 Deposited Plan 310516, Parish of Hunua, 84,764 m². Fee Simple, 1/6 share Lot 12 Deposited Plan 310516, Parish of Hunua, 4,112 m². Fee Simple, 1/6 share Lot 11 Deposited Plan 310516, Parish of Hunua, 2,858 m².	Owners and Occupiers
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30. The properties are identified in **Figure 1** (below) and copies of the written approvals are included in **Appendix B12.3c**.

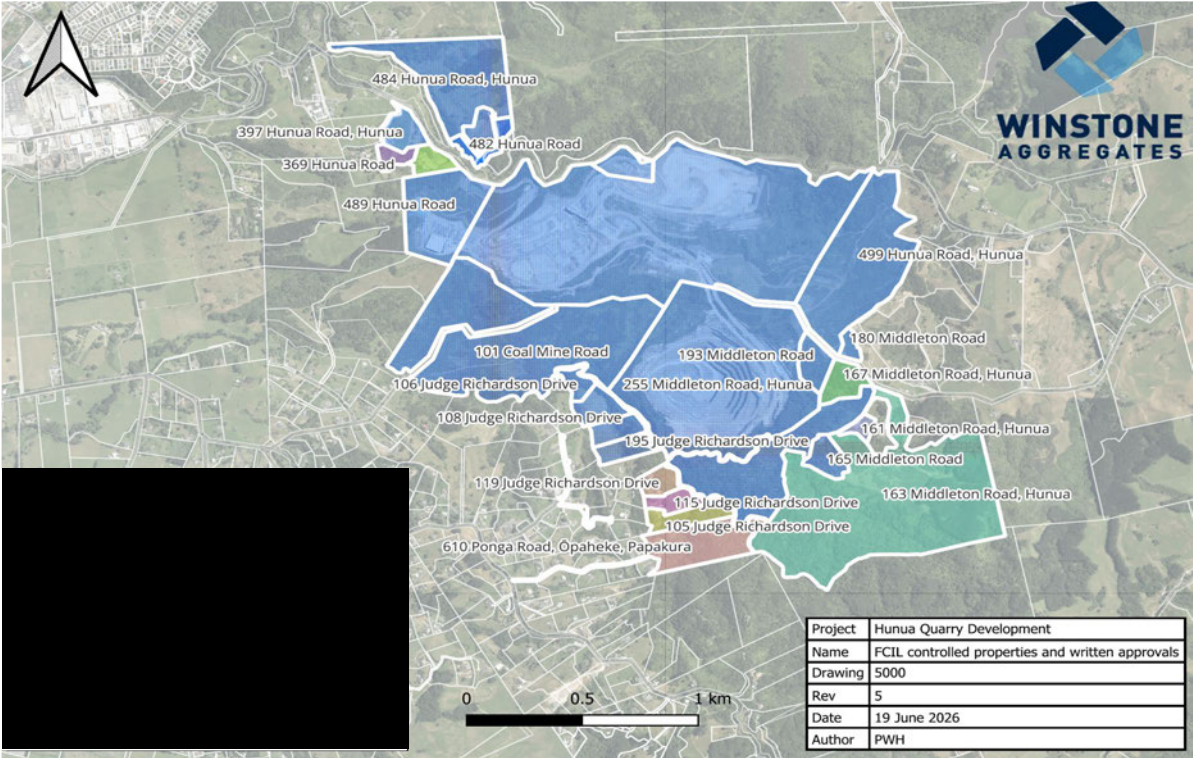


Figure 1: Location of Written Approvals

B1.7 Project Context

31. The Government's Going for Growth agenda (2025) sets out its approach to accelerating New Zealand's economic performance. Within that context, it asserts that delivering infrastructure has become overly complex and inefficient, limiting productivity growth and improvements in living standards. The construction sector, which is central to both housing and infrastructure delivery, continues to face structural challenges such as productivity, resilience and cost pressures.
32. Aggregate is a strategic enabling input to New Zealand's delivery of housing, transport networks, infrastructure and broader civil construction programmes. The configuration of the aggregate supply system directly influences project feasibility, construction timelines and the cost base for the entire construction sector. Therefore, every region, including Auckland, is highly reliant on the availability and price of aggregate in its locality.
33. As a low-value, high-volume commodity, the delivered cost of aggregate is highly sensitive to transport distance and the ability of local supply to respond to demand. However, the aggregate market is highly constrained by limited supplies and potential site depletion, and developing new quarry sites is constrained by significant establishment costs and site limitations. This can translate into higher delivered costs and hamper the delivery of development. Therefore, a secure and reliable aggregate supply is critical to the economic and social well-being of Auckland's people and communities.

34. This Project therefore aligns with the Going for Growth agenda. It protects local aggregate supply at a scale and proximity required by Auckland's construction economy, reducing the cost burden compared with alternative, more distant sources, thereby supporting the timely delivery of housing and infrastructure and the realisation of associated benefits.

B1.7.1 Supplies of Aggregate in the Region

35. Drawing on the Economic Impact Assessment prepared by Greg Akehurst and Tom Harris of Market Economics Limited in **Appendix B12.4.4** (Economic Assessment), a small number of producers account for the bulk of supply in Auckland; entry barriers are high; and demand often exceeds available capacity. The market is shaped by:
- The geographic location of rock and not all locations that possess deposits of suitable material can be extracted economically.
 - Zoning and consenting constraints. The Auckland Unitary Plan contains the SPQZ, but outside this zone, there are significant consenting hurdles. However, even within the SPQZ, traditional consenting processes can be lengthy and uncertain.
 - Auckland's urban development. A growing population increases demand for aggregate. It also causes the urban footprint to expand such that existing quarries are now closer to residential development. This can result in more contentious consenting processes because of perceived effects from noise, dust and vehicle movements.
 - Finite resources. Over time, extractable resources are exhausted and without new sources or expansions to existing sites, the production capacity falls.
36. Reported production in Auckland was 8.6 million tonnes in 2024. However, it is understood that this is a known undercount as several major quarries have confirmed output levels which, taken together, exceed the New Zealand Petroleum and Minerals records. Auckland's adjusted per capita production of 6.6 tonnes is considerably lower than both Northland and Waikato (10.9). The per capita differences reflect structural imbalances whereby Auckland imports significant quantities of aggregate from adjacent regions (Northland and Waikato). This has the effect of adjusting Auckland per capita demand up towards the island average (9.1 tonnes). Even accounting for pending consent applications, Auckland's future production looks unlikely to reach that level in the near future, and the current aggregate deficit will increase as the population grows. The difference must be met by imports from neighbouring regions, principally Waikato. However, this does not reduce the importance of maintaining and increasing local supplies where possible, given the preferential economics in terms of transport costs (both monetary and environmental i.e. vehicle emissions) and retaining current processing infrastructure.
37. Furthermore, it is becoming increasingly difficult to find prospective locations for aggregate resources in the Auckland region and the northern part of the Waikato region, that are not severely constrained by planning and environmental conflicts. Consequently, existing quarries such as Hunua Quarry are becoming increasingly important because of their location in proximity to the Auckland market, having appropriate ownership, and a resource of adequate quality and quantity, that can increase production to assist in reducing the existing deficit.

B1.7.2 Significance of the Symonds Hill Resource

38. Hunua Quarry is one of Auckland's three strategically important aggregate sources and plays a key role in supplying South and Central Auckland due to its scale, established infrastructure, and proximity to major growth and infrastructure areas. Without the proposed Hunua Quarry

39. Continuity of the greywacke resource available within the Hunua Quarry has been established through an integrated programme of drilling (2004–2025), geological mapping, structural surveys, face mapping and ongoing reconciliation against quarry exposures. It is also economically viable to extract the resource, noting that this is primarily governed by the relationship between overburden thickness, weathering distribution and recoverable resource rock. The most accessible rock is located in the southern and eastern parts of the Site where tertiary cover is absent or minimal; but even where the overburden is at its deepest, it is still economically viable to extract the rock.
40. A staged Life-of-Quarry (LoQ) framework further demonstrates that the Hunua Quarry Development can be undertaken in a staged, adaptive, and manageable manner, enabling long-term access to a strategically important aggregate resource while ensuring that the potential adverse impacts of quarrying are appropriately planned for and managed over time.
41. Overall, it is concluded that the Hunua Quarry is a long-established operation, with physical access to a high-quality greywacke resource as well as aggregate markets, and it forms part of the existing environment. It importantly contains existing infrastructure to process aggregates rather than having to establish a new quarry with all the associated costs, both economic, environmental and to the local community that incurs. Hunua Quarry operates in accordance with environmental limits and consent conditions that manage its impacts on the environment and people, thus it is ideally placed to continue to contribute to the Auckland aggregate market.

B1.8 Expert Summary Statement

42. This AEE has been prepared and reviewed in accordance with the Environment Court's Code of Conduct for Expert Witnesses, contained in the Environment Court Practice Note 2023. Other than where it is stated that reliance is placed on the advice of another person, the authors confirm that the issues addressed in this report are within their area of expertise. The authors have not omitted consideration of any material facts known to them that might alter or detract from the opinions expressed.
43. The authors of this AEE are described below and the respective curriculum vitae (CVs) are included in **Appendix B12.1**:
44. **Nick Pollard** is a Partner and Planner at Boffa Miskell with over 20 years' in resource management planning in Aotearoa New Zealand. He holds a Bachelor of Science, Masters degree in Planning and a Masters degree in Urban Design from the University of Auckland, which were obtained in 1997, 2006 and 2010 respectively. Nick has been a full member of the New Zealand Planning Institute since 2014 and completed Making Good Decisions in 2022 and is an accredited Hearings Commissioner. Nick has a depth of experience working with the Auckland Unitary Plan, preparing chapters for the proposed plan, and through the hearings phase, and more recently assisting the Auckland Council's Planning and Resource Consents Department with the intensification plan change both Plan Change 78 (withdrawn) and Plan Change 120, being the most significant change to the plan since its adoption. Nick's role with PC120 is confined to the urban chapters related to the residential and business zones. He has prepared complex resource consent applications for development and appeared before the Environment Court for Direct Referral applications.

45. **Claire Kelly** is a Senior Principal Planner at Boffa Miskell with 20 years' of experience in New Zealand. She holds a Master of Environmental Management from the University of Nottingham and a Bachelor of Science in Physical Geography from the University of London and is a full member of the New Zealand Planning Institute. She also completed Making Good Decisions in 2025 and is an accredited Hearings Commissioner. Claire has strong expertise in shaping and consenting quarry development as well as the preparation of submissions on district and regional proposed plans, plan changes and national policy documents. Her work is often in the rural environment, and she has provided expert evidence for Council hearings. Claire is experienced in leading multidisciplinary teams, preparing complex applications including the formation of workable conditions that support successful infrastructure and development proposals.
46. **Lucy Deverall** is an Associate Principal Planner with over 15 years' experience in both policy planning and resource consenting. She holds the qualifications of a Bachelor of Arts in Political Studies and Sociology (2005) and a Masters in Planning Practice (2007) from the University of Auckland. Lucy is a full member of the New Zealand Planning Institute. Recent experience includes preparation of resource consent applications for quarry expansions, overburden expansions and new quarry development as well as Quarry Management Plans. Lucy is also experienced in the preparation of submissions on district and regional proposed plans and plan changes.
47. The AEE has been reviewed by:
48. **Ken Gimblett** is a Partner and Planner with more than 35 years' experience. Ken has served as the Planning Lead and Independent Hearing Commissioner for fast tracked and RMA opportunities. This includes as Planning Lead on the Dunedin Hospital Resource Consent under the COVID-19 Recovery Fast Track and is an appointed Panel member currently determining the Pound Road Industrial Development proposal under the FTAA. Ken has significant experience in project feasibility analysis and complex consenting, including for large scale energy and infrastructure related projects, and earthquake recovery initiatives. He is a certified Hearing Commissioner with Chairs accreditation, was awarded Distinguished Service recognition in 2019 and is a Fellow of the New Zealand Planning Institute (2024).
49. **Janine Bell** is a Partner and Planner with over 40 years' experience in resource management planning. She holds a Bachelor of Town Planning from the University of Auckland and has been a full member of the New Zealand Planning Institute since 1986, receiving a Distinguished Service Award in 2010. Janine has broad planning experience working in both policy and plan development and the preparation and processing of resource consent applications. She has held several senior management positions within local government in Auckland including being the Auckland Regional Council's General Manager Regulatory Services responsible for the processing and compliance monitoring of all regional consents. She is a certified Independent Hearing Commissioner with Chairs accreditation. Since 2011, she has chaired and been on numerous hearing panels to hear submissions and determine applications for a variety of plan changes, notices of requirements and resource consent matters. She was also a member of several COVID -19 Recovery Fast Track Consenting Panels.

B2. Site Context and Existing Environment

50. This section of the application is provided in accordance with clause 5 of Schedule 5 of the FTAA.

B2.1 Location

51. The address of the Site is 489 Hunua Road, Hunua but the Site comprises:
- Lot 2 Deposited Plan 55769 (RT NA8A/243).
 - Part Allotment 79 Parish of Hunua (RT NA576/104).
 - Part Allotment 79 Parish of Hunua (RT NA576/105).
 - Allotment 345 Hunua Parish (RT NA28A/1311)
 - 499 Hunua Road: Lot 1 Deposited Plan 105061 (RT NA57D/1355)
 - 0 Middleton Road (was paper road) and Section 1 Survey Office Plan 417727 (484772)
 - 165 Middleton Road: Lot 5 DP 152736 (RT NA91A/948)
 - 193 Middleton Road: Lot 1 Deposited Plan 120541 (NA69D/366)
 - 255 Middleton Road: Lot 1 Deposited Plan 60065 (NA18D/1181)
 - 101 Coalmine Road: Allotment 38 Parish of Hunua (NA575/139).
52. Refer to Figure 2 below for the site location map showing the Site extent, and the Quarry Development Area. Refer Figure 3 for the land parcels that comprise the site. Copies of records of titles can be found in **Appendix A6.9** to the substantive application overview.

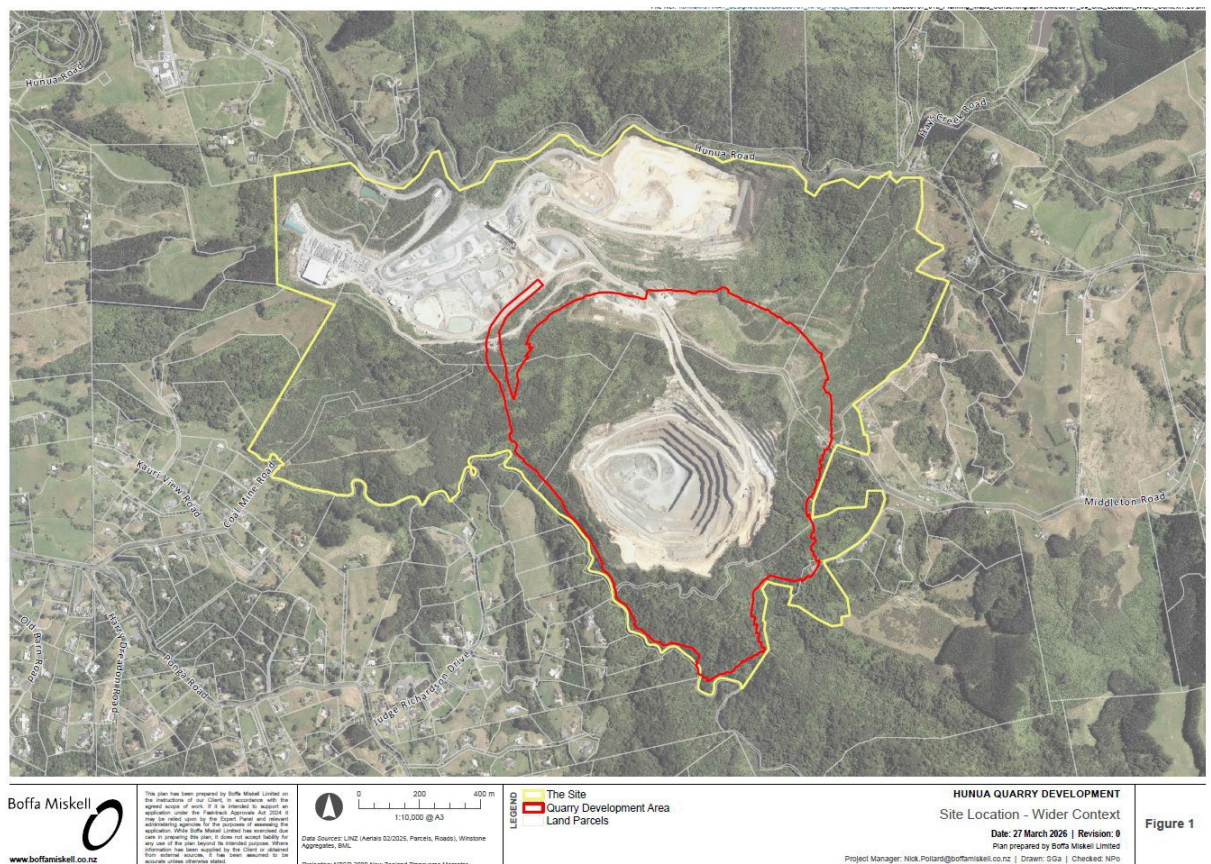


Figure 2: Site location map showing the Site extent, the Quarry Development Area (refer **Appendix B12.2b Location Plans, Figures 1 and 2**)

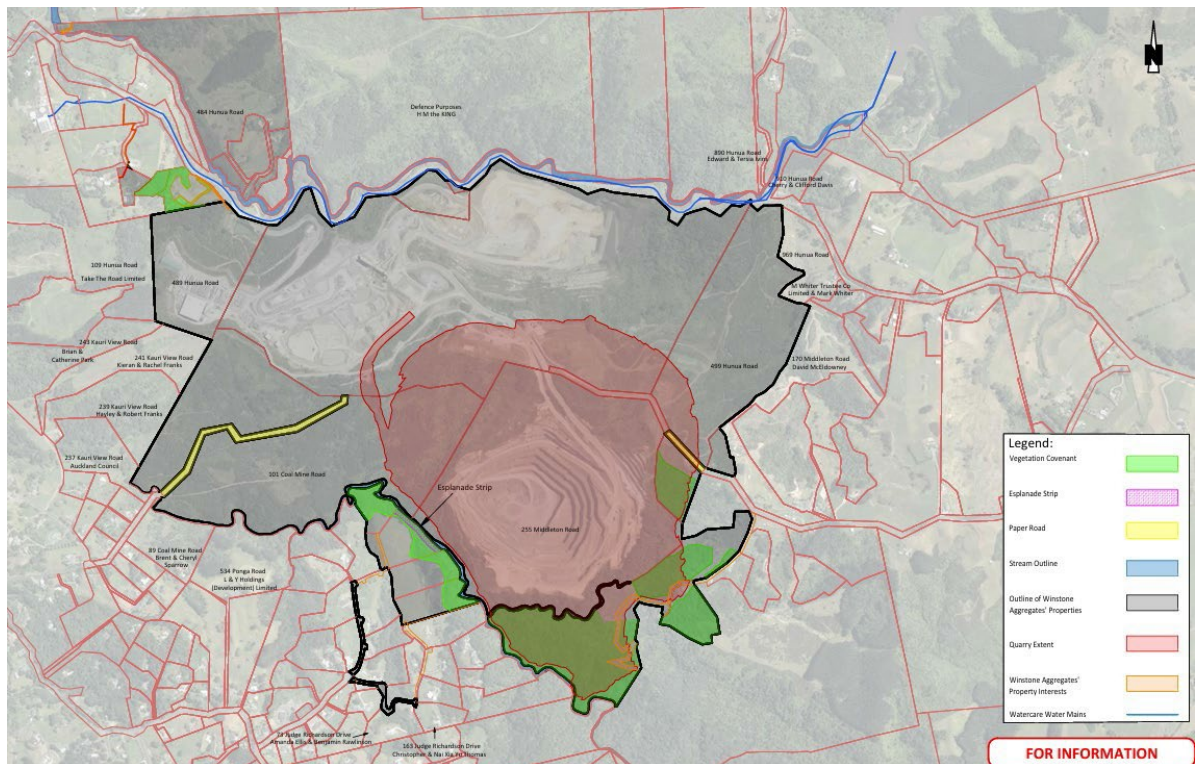


Figure 3: The Site location map showing the FCIL land ownership in grey, noted as 'Outline of Winstone Aggregates Properties', the Quarry Development Area (in red, noted as 'Quarry Extent'), Paper Roads (in yellow, owned by Auckland Council) and other land where there is an interest for FCIL Landholdings (in orange, noted as Winstone Aggregates' Property Interests) to be used for offset works (refer **Appendix B12.2a** Survey Plans for cover sheet reproduced above and accompanying detailed sheets are included in the appendix with owners, legal descriptions and property details including schedules of existing covenants, existing encumbrances, existing consent notices, esplanade strips and existing easements)

B2.2 Hunua Quarry (the Site)

53. Hunua Quarry is accessed from Hunua Road, which forms the northern boundary of the Site (see **Figure 4** below).



Figure 4: Hunua Quarry Site access (Source: **Appendix B12.4.14** Transportation Assessment, refer Figure 2).

54. The Quarry comprises 251 hectares owned by FCIL. It includes areas used for extraction, overburden disposal, quarry production facilities, storage and vehicle maintenance as well as large areas of remnant bush and pasture.
55. The Site's character is not only defined by two distinct 'worked' areas being 'Hunua Pit' and 'Symonds Hill Pit' and the stockyard/processing area, but also its undulating topography, extent of indigenous vegetation and several waterways that flow through the Site.
56. A section of the Waipokapū stream is located directly adjacent to the northern boundary of Site and flows in a west to east direction, generally following the alignment of Hunua Road, before discharging into the Watercare Hays Creek Water Reservoir. A stretch of the Waipokapū stream lies within a Significant Ecological Area (SEA_T_5289) Overlay and a High Use Stream Management Area Overlay in the AUP.
57. Mangapū Stream (Symonds Stream) flows in a west to east direction along the southern extent of the Symonds Hill Pit. This Stream is identified as being within a Natural Stream Management Area Overlay and Significant Ecological Area (SEA_T_5323) Overlay in the AUP. Refer to **Appendix B12.2b**, Figure 4 (overlays)

B2.2.1 Hunua Pit

58. The area described as the 'Hunua Pit' (Pt Allotment 79) encompasses the area to the north of the Middleton Road ridge and contains the former aggregate extraction area of the Hunua pit. With aggregate extraction having ceased, the Pit is currently being backfilled with:
 - overburden from the Symonds Hill pit; and
 - managed fill brought onto the Site; and

- fines from sediment ponds and processing activities that are placed within a containment cell.

59. The recycling of concrete (crushing) also occurs in this area.

B2.2.2 Hay Paddock

60. The area known as Hay Paddock (Lot 1 DP 105061) lies to the east of the Pit. The western portion of this area that adjoins the Hunua Pit was previously used to place overburden. Although this work is now complete, and the area, along with the eastern portion of the lot, has been partly planted in indigenous vegetation with some natural regeneration also occurring. The southern portion of this lot supports some planted / grassed areas as well as an area used for machinery storage.

61. Under Consent 8730, Winstone was required to plant new, and enhance existing, indigenous vegetation on the eastern portion of this area. This included removing pine trees and planting broadleaved trees and placing a protective covenant over the planted and enhanced areas. However, whilst the planting has been undertaken and is now well established, the covenant has not been registered over the area. This matter is addressed by this application in section B4.4.

B2.2.3 The Stockyard and Processing Area

62. The Stockyard and Processing Area is located to the west of the Hunua Pit in Lot 2 DP 55769 and Pt Allotment 79 as identified on **Figure 4**. It is at the end of the access road and is where the staff facilities and car parking are located. This area also contains the existing authorised aggregate processing and stockpile activities including fixed and mobile crushing and processing plant. The Firth Block Plant is located to the west of the main facilities area as shown in map entitled Hunua Quarry Development – Overview of Consents in **Appendix B12.2b**.

63. The southern boundary of the processing area is bound by Middleton Road, beyond which is a large area of indigenous vegetation (SEA_T_5323).

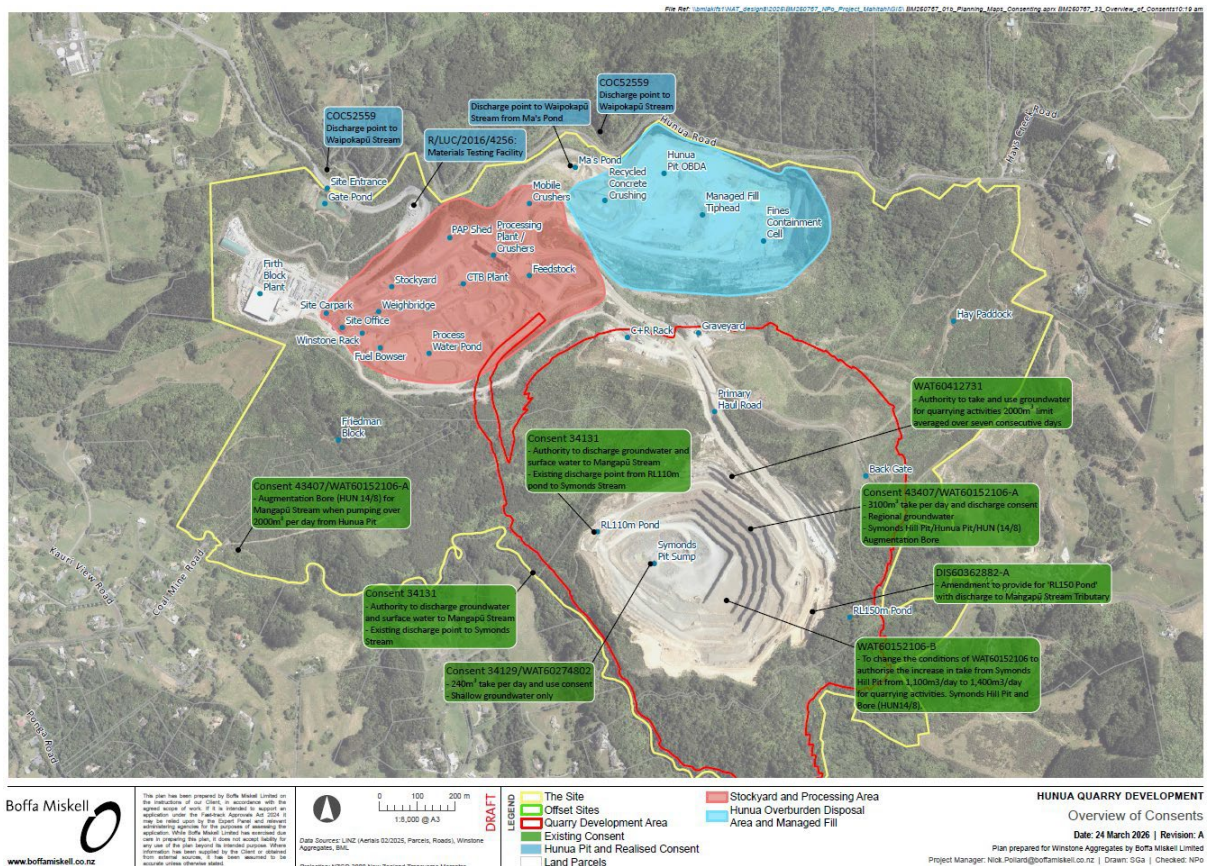


Figure 5: Existing Operations Layout

B2.2.4 Symonds Hill Pit

64. The current Symonds Hill Pit lies to the southwest of the Middleton Road ridge entirely within Lot 1 DP 60065. Extraction began here in 2014 and since then, the Pit has been extended and deepened within its consented boundaries with limited dewatering currently being required. A haul road connects the Pit to the aggregate processing facilities within the Stockyard and Processing Area.
65. The land to the northwest (Lot 1 DP 120541) and to the west of the Symonds Hill Pit (Lot 2 DP 115598 and Lot 5 DP 152736) are entirely in pasture and bush of varied quality.

B2.2.5 Friedman Block

66. The area to the south of the processing facilities and to the east of the Symonds Hill Pit, being Pt Allotment 38 and the Friedman Block (Allotment 38 PARO) contains high ecological values, and a significant portion lies within the Significant Ecological Area (SEA_T_5323) Overlay in the Auckland Unitary Plan (AUP). The western third of this allotment (either side of Coal Mine Road) is subject to revegetation by Winstone and is proposed to be subject to a covenant to protect its ecological values. Current Operations at Hunua Quarry
67. Hunua Quarry operates as a vertically integrated aggregate facility comprising the following key components:
 - **Symonds Hill Pit:** Active extraction area producing greywacke aggregate.

- **Processing Plants:** Three-stage crushing and screening circuit feeding multiple product stockpiles via fixed and mobile plant.
- **Haul Roads and Internal Accessways:** Connecting extraction zones with the processing area, product load-out and OBDA areas.
- **Water Management Infrastructure:** Sediment retention ponds, surface water channels and water take bores.
- **Administrative and Maintenance Facilities:** Weighbridge, office buildings, workshops, and equipment service areas.
- **Power and Utilities:** 11 kV electricity supply, diesel fuel storage, and water pipelines.
- **Managed fill / cleanfill operations:** consents³ allow the placement of 2 million m³ of overburden and 6 million m³ of managed fill in Hunua Pit to RL 170m. The managed fill being brought to the Site is tested for acceptability prior to placement into the OBDA.

68. The quarry operates under the Hunua Quarry Environmental Management System which governs compliance, reporting, and adaptive management procedures.

B2.2.6 Operational Overview

69. The purpose of the mineral extraction operations at Hunua Quarry is to extract rock from the ground and process it to produce building, construction and roading aggregates. The transformation of rock from the ground into aggregate products firstly requires the removal of any vegetation, and then the stripping of overburden (soils and low-quality material) overlying the rock resource. The next step is to loosen and fragment the rock from the ground with the use of explosives and/or heavy machinery. The rock is then excavated by heavy machinery and either stockpiled or transported to the processing plant for further crushing and screening into various sizes and grades for sale.

B2.2.6.1 Rock Removal

70. Quarrying of rock at Hunua Quarry generally requires drilling and blasting with explosives. All blasts are designed, managed and executed by trained and qualified personnel. Typical current practice at the Symonds Hill Pit uses drilled 102 mm diameter blasting holes loaded with either bulk or bagged ANFO (Ammonium Nitrate and Fuel Oil) initiated sequentially with non-electric detonators to reduce the potential for vibration and air blast.

B2.2.6.2 Processing Rock

71. Rock is processed into aggregate products by crushing, screening, washing, blending and conveying machinery. The processing plant is a closed-circuit system with only make-up water added to compensate for water lost through evaporation or taken up by the aggregate products themselves.

³ The relevant resource consents are:

DIS60083577: Enabled utilising managed fill to rehabilitate the Hunua Pit.

R/LUC/2017/483: Enabled the reinstatement of the original landform of Hunua Quarry by disposing of approximately 2 million m³ of overburden / cleanfill (existing Symonds Hill consent and approved QMP) and about 3 million m³ of managed fill from development sites around Auckland.

BUN60356960 – DIS60326961 – LUC60356962: To continue with overburden disposal from the Symonds Hill Pit and managed fill, increasing the reinstated levels of the Hunua Pit from RL90m (consented under R/REG/2017/819) to RL170m, which includes: the placement of a further 3 million m³ of imported managed fill and 2 million m³ of overburden. The managed fill will continue to be imported as part of backloading of trucks already accessing the site for aggregate. This consent increases the volume of the managed fill to a total of 6 million m³

72. The plant also incorporates a blending system which allows for aggregates that would otherwise be considered low grade material to be modified by using either clean rock by-products or small amounts of additives such as cement, lime, flyash and steel mill and concrete manufacturing by-products to improve or upgrade the material properties. This system ensures that the resource at Hunua is optimised and waste is minimised, allowing marginal materials to be used as engineered roading products.
73. The location of the processing plant is generally shown in **Appendix B12.2b** Location Plans sheet entitled 'Overview of Consents'. While operationally it is desirable that the current fixed plant process all the rock from the Symonds Hill Pit, from time to time mobile aggregate processing plant may be used to supplement, or substitute for, the fixed plant operation. The need to use mobile crushing equipment is either output related, for product/market reasons, or required because of major maintenance on the fixed plant. From an environmental effects perspective, all plant and site operations are subject to the same set of environmental controls such as using sprinklers for dust suppression.
74. In summary, the plant is designed to maximise the use of the Hunua rock resource while at the same time minimising the potential for adverse environmental effects.

B2.2.6.3 Storage and Distribution

75. The storage and distribution operation at Hunua currently has an overall output of around 3 million tonnes per annum. Most related activity occurs in the Stockyard and Processing Area where raw and processed materials are stockpiled. Aggregate products are transported by a range of mobile plant and equipment, and wheel loaders are used to load customers' trucks for distribution off site.

B2.3 The Project Footprint

76. The Project footprint comprises Lot 1 DP 60065 (which includes the existing Symonds Hill Pit), land to the north (Pt Allotment 79 and Lot 1 DP 105061), land to the east (Pt Allotment 38) and land to the west (Lot 2 DP 115598 and Lot 5 DP152736). This land is zoned as Special Purpose Quarry Zone and is described above.
77. Lot 2 DP 115598 and Lot 5 DP152736 are zoned as Rural: Mixed Use and are also subject to a Quarry Buffer overlay and either lie partly or entirely within an outstanding natural landscape (ONL). The Mangapū Tributary runs through Lot 2 DP 115598.
78. Refer to the location plans in **Appendix B12.2b** for details on the location of the AUP zones, and overlays relative to the site
79. The values and characteristics of the Project footprint and its immediate surrounds are described in detail in the Existing Environment section below.

B2.4 Landscapes and Natural Character

B2.4.1 Broader Landscape Context

80. The Landscape Effects Assessment prepared by John Goodwin and Amanda Anthony of Boffa Miskell Ltd in **Appendix B12.4.10** (Landscape Effects Assessment) states that the landscapes which make up the broader Auckland Region were previously assessed as part of the Auckland Regional

Policy Statement Review: Landscape ⁴. This study identified the Site as being located in the Ararimu Greywacke Dominant Hill Country Landscape Management Area.

81. This Area is defined by a dissected western hill ridge system running north–south, with elevations typically above 100m and rising to 329m at Opaheke Summit. These hills feature steep and very steep gully systems draining both west and east. Broad inland valleys such as Hunua exhibit flat to rolling terrain, forming open elevated hill country landscapes.
82. Pre-settlement vegetation comprised Kauri / taraire-kohekohe-tawa forest in the northwest, Rimu/tawa-kamahi forest on elevated ridges, and Kahikatea-pukatea-tawa forest in inland valleys. However, today, inland valleys and southern ridges are largely pastoral, interspersed with small indigenous vegetation patches on steeper slopes and gullies. Hydrology is shaped by streams draining west to Manukau Harbour and east to the Wairoa River, with headwaters often in indigenous cover but most valleys are dominated by pastoral land.
83. In terms of land use, production forestry is fragmented and often intermixed with indigenous forest remnants. Subdivision is common on slopes within vegetated gullies, particularly within rural residential residences along Ponga Road as well as adjoining side roads such as Coal Mine Road and Judge Richardson Drive. The larger settlements of Papakura lie to the northwest and the settlement of Drury to the southwest.

B2.4.2 Local Landscape Context

84. Hunua Quarry is a long-established quarry and forms a prominent and defining element within this rural landscape; its partially visible benches, haul roads, and modified landforms emerge intermittently between folds of the terrain.
85. Large tracts of vegetated land surrounding and within the Site are identified as SEAs and the land to the south and south-east lies within an ONL, with a small portion extending into the southern area of the Site. Pastoral land uses and the large New Zealand Defence Force land to the north and rural and rural residential properties, all combine contribute to a distinct rural landscape character and amenity.
86. The Project Footprint partly sits within the established quarry zone where the landscape has been progressively modified and within the ONL and SEA, which is discussed in sections B2.5.3 and B2.11 below.

B2.4.3 Outstanding Natural Landscape

87. The ONL that extends over a large tract of vegetated land surrounding the Site and the Project Footprint is described in Schedule 7 of the AUP and this has been reproduced in the Landscape Effects Assessment (refer **Appendix B12.4.10** at Table 3). The values of the ONL at a site scale have been identified in the Landscape Effects Assessment in three categories, and are summarised below:
 - **Physical** – the greywacke hill country with coherent ridge and gully landforms with steep faces, presence of mature indigenous forest, the stream tributary corridor.
 - **Perceptual** – highly legible system of forested ridges and dissected gullies, high levels of naturalness and relatively unmodified stream corridor and less accessed slopes. Views at the

⁴ Ibid.

site scale are layered, textural and deep greens which is associated with differing vegetation types and the vegetation patterns emphasising the underlying landform.

- **Associative** - Otūwairoa Stream and its tributaries, including Waipokapū Stream, Mangapū Stream, and Waihoehoe Stream, and adjacent contiguous vegetation, are within statutory acknowledgement areas and hold particular importance and significance to iwi.

B2.4.4 Natural Character

88. The natural character of the Mangapū Stream is influenced by a combination of its sinuous channel form and numerous tributaries, together with riparian indigenous vegetation. Sections of the Stream adjacent to the quarry retain elements of naturalness, particularly where vegetated margins soften the modified context and reinforce the legibility of natural drainage patterns. As a result, the Landscape Assessment concludes that the Mangapū Stream has moderate-high levels of natural character overall, with higher natural character evident in more vegetated and less modified reaches.
89. The lower reach of the Mangapū Tributary, its margins and wider landscape context exhibit a high degree of natural character, evidenced by the presence of mature indigenous vegetation, located within SEA_T_5323, (and limited exotic weed species) providing extensive and continuous canopy cover. This vegetation contributes to shading, bank stability, and habitat connectivity. Its form and behaviour are strongly influenced by the surrounding landform, with geomorphology and surface topography guiding channel alignment, gradient, and flow dynamics. Consequently, it is considered to have high to very high natural character.

B2.4.5 Summary

90. The longstanding Hunua Quarry is a notable feature of the local landscape, contributing a more modified, extractive character in its immediate vicinity. Elements such as exposed quarried faces, the haul road, stockpiles, and historic landform changes add a working rural landscape dimension. This contrasts with the folded rural landscape characterised by rolling to steep hills and extensive areas of vegetation in the surrounding area. As a result, the overall landscape context is a blend of natural and modified features, rather than a pristine environment. However, the Mangapū Stream has moderate to high natural character and Mangapū Tributary has high to very high natural character reflecting its generally unmodified form and the presence of mature indigenous vegetation.

B2.5 Climate / Meteorological Conditions

91. Winstone Aggregates operates its own Automatic Weather Station (AWS) at Symonds Hill which was installed in August 2014. The wind sensor is mounted at a height of approximately 5m above ground level at the same location as the Symonds Hill Total Suspended Particulate (TSP) monitor.
92. The location of the Site has a significant impact on its meteorological conditions as the topography of rolling hills and valleys affects wind speed and direction. Using data collected from the on-site AWS during 2023 to 2025 inclusive, the predominant wind is from the west southwest, and this occurs approximately 20% of the time. This is consistent with typical wind conditions in Auckland. Frequent winds also occur from the west and southwest, and approximately 28% of all winds blow from the east as shown in **Figure 5** below.

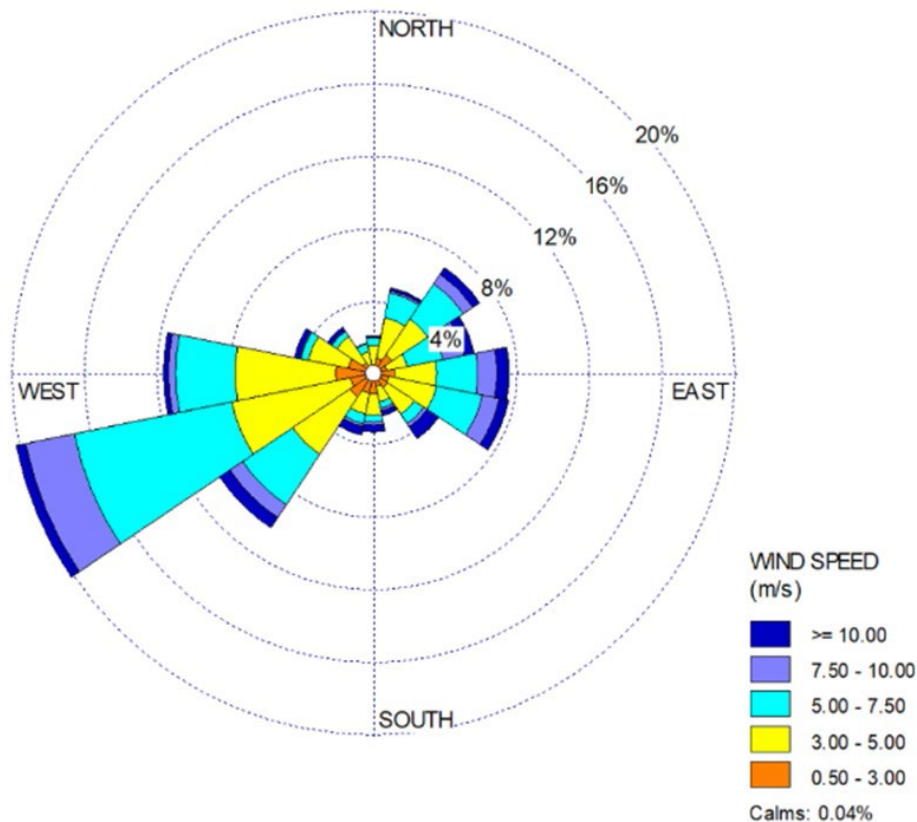


Figure 6: Windrose from Site AWS from 2023 to 2025

93. Average daily precipitation recorded during the same period (excluding 2023 due to the extreme rainfall experienced) shows that the driest months are January to March. Over the two-year period, there were 351 days with <0.2 mm of rain in a 24-hour period (or 'dry days'), which corresponds to almost half of the time (48%). During the driest months, the percentage of dry days increases to 67% of the days.
94. The meteorological conditions at the Site impact directly on the management of dust, erosion and sediment.

B2.6 Geology

95. The geology of the Quarry Development Area is described in detail in the Geotechnical Assessment prepared by Tonkin and Taylor in **Appendix B12.4.8 Geotechnical Assessment (Geotechnical Assessment)**. In summary, the Quarry Development Area is dominated by Waipapa Group Greywacke rock, overlain in the north and northeast by Te Kuiti Group Waikato Coal Measures (WCM) and Waitemata Group (East Coast Bays Formation). The Site is located within an uplifted block bound by the faults related to the southeast to northwest trending Drury Fault and southwest to northeast trending Hunua Fault.



Figure 7: Geological map for the Hunua Quarry. Bold dashed lines indicate the location of the Drury Fault system. (Source: **Appendix B12.4.8** Hunua Quarry Geotechnical Assessment, prepared by Tonkin & Taylor)

B2.7 Groundwater

96. The Groundwater Effects Assessment prepared by Parviz Namjou and Sean Wheeler at PDP in **Appendix B12.4.9** Groundwater Assessment (Groundwater Assessment) details the hydrogeology of the Site. In summary, both the Hunua Pit and the Symonds Hill Pit are located over the same regional aquifer but within separate surface water catchments. They are also both situated within greywacke basement rock, comprising thinly-bedded, alternating sandstone and siltstone with variable fracture density.
97. Historical records indicate the pre-quarry groundwater level at Symonds Hill Pit was about RL75m. The current groundwater level, influenced by pumping from the Hunua Pit, is at approximately RL60m. The Hunua Pit is currently being backfilled, which has raised groundwater levels in its vicinity from RL 20m to RL 52m (based on records from monitoring bore HUN07/8). However, continued backfilling will not cause any further increase in regional groundwater levels, as these are now controlled by Symonds Hill Pit dewatering.
98. The current quarry water supply for processing, dust suppression, and stream augmentation is sourced from both regional and shallow groundwater via a water supply bore HUN14/8 near Coal Mine Road and the Symonds Hill Pit sump as set out under Section B2.3.2.

B2.7.1 Regional Groundwater System

99. The regional groundwater system is essentially deep groundwater that is recharged by downward percolation from the shallow groundwater or directly through greywacke outcrops in catchments. A sharp groundwater level rise east of the Symonds Hill Pit is caused by the Hunua Fault creating a flow barrier that impedes natural westward groundwater movement. This geological feature bounds the Greywacke Hunua Block from which inflow to the Symonds Hill Pit is sourced.
100. Groundwater level contours (Figure 6 in **Appendix B12.4.9** Groundwater Assessment) and hydrograph responses show significant hydraulic connectivity across the Site, particularly to the south and southwest of the pits. A sudden increase in inflow at the Hunua Pit in late 2016, due to intercepting a fault, caused synchronous water level drops in deep monitoring bores across the Site (e.g., HUN5/3, 4320) and north of the Drury Quarry (SG7, SG3D).
101. However, reduced connectivity is evident between the Symonds Hill Pit and the wider Site. Pumping tests at Coal Mine Road (HUN5/3) did not affect water levels at Symonds Hill (HUN4/12) (PDP 2006, 2021). This suggests a local barrier fault or zone of tighter fracturing may be isolating the Symonds Hill groundwater system, explaining its consistently higher water levels (about 10m above other site bores).

B2.7.2 Shallow Groundwater

102. Above the regional water table, there are localised perched saturated zones that are recharged via rainfall infiltration and flow across the Drury Fault. Shallow groundwater is not directly connected to the regional system, is encountered at elevations above RL60m and typically discharges to local streams. The groundwater hydrographs for 32 bores and piezometers within the greywacke block show that shallow groundwater does not respond to the lowering of the sump, while the groundwater level in the deeper bores does. This confirms the hydraulic separation between the shallow groundwater and the regional groundwater, and that the current dewatering has no impact on the shallow bores within the bore intake zone above the regional groundwater (i.e. > RL60m).

B2.7.3 Water Quality

103. The Symonds Hill Pit sump was sampled in October 2024. Water samples were also taken from Mangapū Stream in December 2025 at four locations – Downstream, Upstream 1 (Fork)(east), Upstream 1 (Fork)(south), Upstream 2. The data shows little to no variation in contaminant levels between sampling sites that are upstream of the quarry discharge and the downstream sampling point. The concentration of some parameters (Aluminium, Copper and Iron) exceeds default guideline values for 95% species protection. However, the exceedances are relatively minor both upstream and downstream of the quarry discharge location, indicating the quarry discharge does not have a significant impact on stream water quality.

B2.7.4 Take and Use of Groundwater

104. Groundwater for the quarrying operation at the Hunua Pit was taken from a pumping bore (HUN18/1) located adjacent to the former Hunua sump located within the pit. This water was used for processing aggregate and to augment flows in Waipokapū stream (Hays stream). However, due to the cessation of aggregate extraction at the Hunua Pit, very little dewatering of the Hunua Pit has

occurred in recent times. This has led to a rise in groundwater levels, which is discussed later in this report.

105. Winstone Aggregates holds global consents (WAT60152106-A, NRSI 43407) authorising the dewatering of the Symonds Hill Pit to RL -5m and a total groundwater take of 5,340 m³/d, for its quarrying operation for the site allocated as follows:
- 3,000 m³/d for dewatering.
 - 2,000 m³/d for quarry operations (sourced from the Symonds Hill Pit sump and supply bore HUN14/8).
 - 100 m³/d from shallow groundwater at the Hunua Pit.
 - 240 m³/d from shallow groundwater at the Symonds Hill Pit.
106. The current consent also requires Winstone to monitor water levels in neighbouring bores (listed in the consent document) and if drawdown effects occur, investigate the cause. If the cause of the drawdown is related to the Symonds Hill Pit or Symonds Stream augmentation bore, Winstone must offer to develop and implement a Water Supply Mitigation Plan with the affected bore owners.
107. In 2022, Winstone applied for a new consent (WAT60400593 and WAT601152106-B) to relocate the operational water take point from a damaged water supply bore (HUN18/1) to the current supply bore (HUN14/8) and the Symonds Hill Pit sump. This consent authorised a maximum take of 1,400 m³/d from HUN14/8. Granted in July 2022 for a short term, it expired in May 2023. A replacement application was lodged in 2023 and is currently under Council consideration. Winstone is seeking to progress this replacement application with urgency.
108. The 'replacement' take and use of groundwater at Symonds Hill Pit (WAT60412731) seeks to take groundwater from the Hunua West Greywacke Aquifer Zone, Hunua Wairoa Greywacke Aquifer and the Waitemata Aquifer and the use of this groundwater for quarrying activities at Hunua Quarry.
- The daily abstraction of groundwater from the Symonds Pit Sump and the Mangapū Stream Bore (HUN14/8) averaged over any seven consecutive days must not exceed 5,820 cubic metres (this includes 2,610m³/d for the quarry water use).
 - The annual abstraction of groundwater from the Symonds Pit Sump and the Mangapū Stream Bore (HUN14/8) averaged over the twelve-month period commencing 1 June and ending 31 May of any year must not exceed 2,124,300 cubic metres.
109. The taking of groundwater is subject to the Groundwater Monitoring and Contingency Plan, which accurately records all management and operational procedures, monitoring requirements, methodologies and contingency measures necessary to comply with the conditions of WAT60400593 and WAT601152106-B. This includes monitoring for drawdown effects in any bores on private property within the zone of influence and remediation measures to be agreed with affected owners. Stream flows are also monitored and augmented as required to minimise impacts on water quality and ecological values.

B2.7.5 Discharge of Groundwater and Process Water

110. There are two existing authorised discharge points to the Waipokapū Stream from Hunua Quarry as identified on the map entitled Hunua Quarry Development – Overview of Consents in **Appendix B12.2b**.
- Discharge point 1) to Hays stream from Gate pond at the Hunua Pit;

- Discharge point 2) to Hays stream from Ma's pond at the Hunua Pit.

111. There is also a process water pond located to the southeast of the Stockyard and Processing Area.

112. There are two authorised discharge points from a pond within the Symonds Hill Pit to Mangapū Stream as identified on the map entitled Hunua Quarry Development – Overview of Consents in **Appendix B12.2b**.

- Discharge point from RL110m Pond at Symonds Hill Pit to a tributary of Mangapū Stream.
- Discharge point from RL150m Pond at Symonds Hill Pit to a tributary of Mangapū Stream.

113. Water quality is monitored to ensure that discharges from the quarry do not increase the median suspended sediment load of the Hays and/or Symonds Stream by more than 20% measured on a quarterly basis, and that there are no adverse impacts on water chemistry or ecological values. Winstone submits an Annual Management Plan to AC to ensure consistency with relevant consent conditions and to demonstrate that water management is in general accordance with TP 90.

B2.7.6 Erosion and Sediment Control

114. The Hunua Quarry operates in accordance with the design principles of the Auckland Council Guideline Document 2016/005 Erosion and Sediment Control Guideline for Land Disturbing Activities in the Auckland Region (GD05). Works within the Site are subject to an Erosion and Sediment Control Plan (ESCP) certified by Auckland Council that identifies the erosion and sediment control (ESC) measures that manage site runoff associated with earthworks and overburden removal.

B2.8 Air Quality

115. Hunua Quarry currently operates under a global Permit No. 34130, which expires on 29th October 2044. This permit authorises the discharge of contaminants into air (primarily dust), from activities associated with the operation of the Hunua Quarry, including vegetation removal: overburden removal; excavating rock; blasting and drilling; crushing, screening storage, and transport of rock; and the operation of a blending plant.

116. It sets conditions to manage dust and monitoring requirements for Total Suspended Particulate (TSP) at the following locations: the site of the existing monitor near the quarry access, the general vicinity of Middleton Road, and on the south westerly boundary. It also requires adherence to an Air Quality Management Plan.

117. As such, all activities within the existing consented pit, OBDA and the stockyard and processing area (refer **Appendix B12.4.1**) are subject to air discharge Permit 34130. This includes areas of this Project, being Stage 1 and that part of Stage 2 within Lot 1 DP 60065.

118. As described in the Air Quality Assessment prepared by Cameron Brown and Andrew Curtis of PDP (Air Assessment) in **Appendix B12.4.1**, the Site has three dust monitors: one located at the Main Gate, one to the northeast of the Symonds Hill Pit and the other to the southwest of the Site on land also owned by Winstone Aggregates (Ponga Road). These monitoring locations are shown on **Figure 7** below.

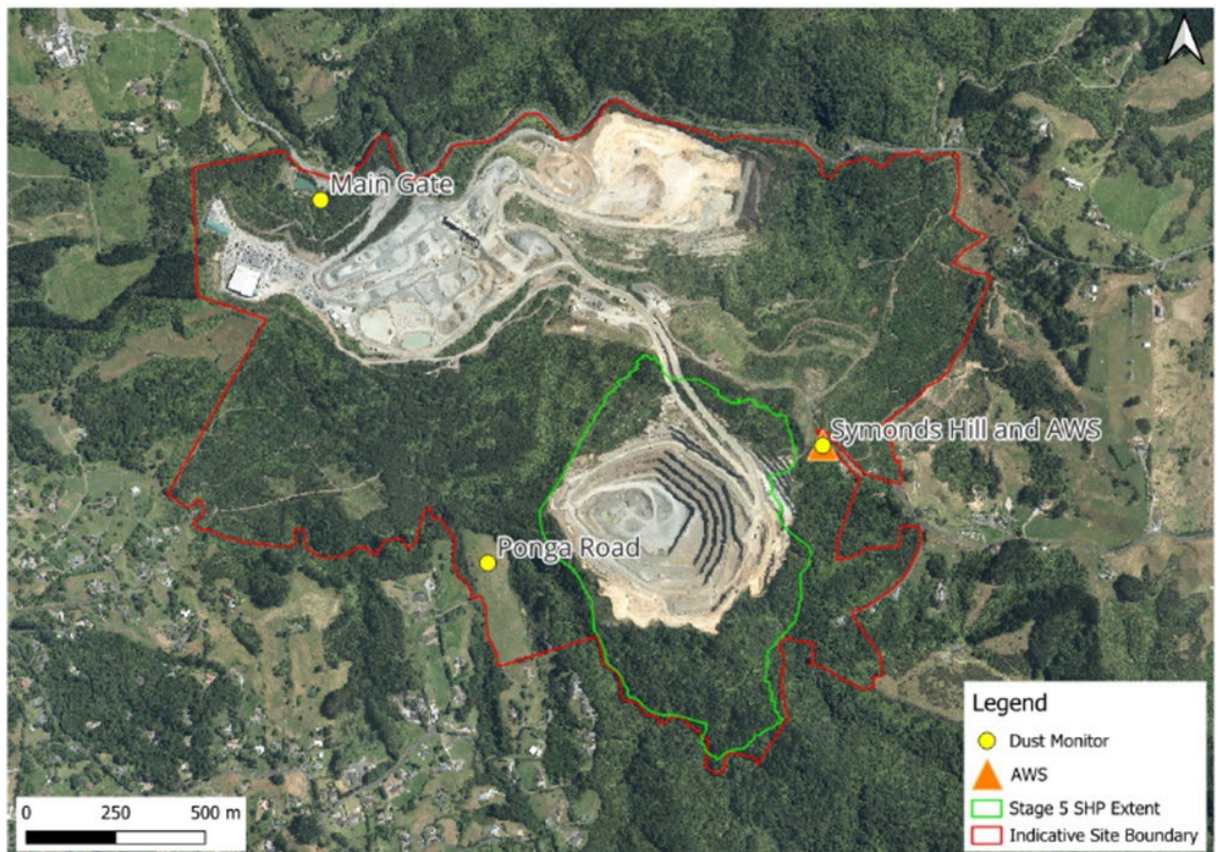


Figure 8: Current Dust Monitor and AWS Locations

119. The TSP monitor at the main gate has not registered an exceedance of the Site's consent limit of 100 $\mu\text{g}/\text{m}^3$ (24-hour average concentration) over the last two years. There has been one exceedance of the Good Practice Guide for Assessing and Managing Dust⁵ (GPG Dust) recommended TSP trigger level of 250 $\mu\text{g}/\text{m}^3$ for moderately sensitive receptors (rural-residential properties as defined in GPG Dust) which was recorded in February 2024 (when the processing plant area was not upwind).
120. The Ponga Road monitor is located approximately 230 m to the south southwest of the centre of the pit and given the typical meteorology of the Site is frequently downwind of the Pit. The TSP data analysis shows that between 2021 and 2025, there were no exceedances of the MfE 250 $\mu\text{g}/\text{m}^3$ suggested trigger level, with the maximum TSP concentration being recorded as 118 $\mu\text{g}/\text{m}^3$. There have also been no exceedances of the consent limit of 80 $\mu\text{g}/\text{m}^3$ (24-hour average concentration).
121. The Symonds Hill monitor is located 85 metres to the northeast of the Pit and in May 2021, the MfE 250 $\mu\text{g}/\text{m}^3$ suggested trigger level was exceeded when a strong wind was blowing from the west southwest at a speed of 5.8 m/s as a 1-hour average. Only one hour was recorded as being greater than 250 $\mu\text{g}/\text{m}^3$, with the TSP concentration dropping to 191 $\mu\text{g}/\text{m}^3$ in the hour following, and further to 66.5 $\mu\text{g}/\text{m}^3$ after that. During these two hours following the initial 250 $\mu\text{g}/\text{m}^3$ exceedance, the winds were greater than 4 m/s. The consent limit of 80 $\mu\text{g}/\text{m}^3$ (24-hour average concentration) was also exceeded during this event.

⁵ Ministry for the Environment, 2016. Good Practice Guide for Assessing and Managing Dust.

122. PDP also measured PM₁₀ over a two-month monitoring campaign near to the dwellings located on Judge Richardson Drive as identified on **Figure 8** below.



Figure 9: Short-term PM₁₀ Monitoring Location

123. The purpose of this monitoring was to record ambient concentrations of PM₁₀ during dry, summer conditions, and compare the findings to the 24-hour average NES-AQ limit of 50 µg/m³. The PM10 concentrations did not exceed the 24-hour average NES-AQ limit of 50 µg/m³.

B2.8.1 Transport

124. Hunua Quarry is located on Hunua Road, which comprises one vehicle lane in each direction, a road reserve of approximately 9m and a sealed width of 7.5m. This part of the road has a posted speed limit of 80km/h. Access to the Hunua Quarry is, and will continue to be, from a single existing access which connects the Site to the wider transport network. The existing access provides for two-way truck movements.
125. While this part of Hunua Road is not classified as an Arterial Road, the area west of the site entrance is part of the Auckland Strategic Freight Network. As shown in Figure 10 below, Hunua Road through to Settlement Road as well as Settlement Road and Beach Road through to SH1 (southern motorway) and Dominion Road are classified as Freight Roads. All these roads have been specifically designed and progressively upgraded to cater for large truck and trailers.

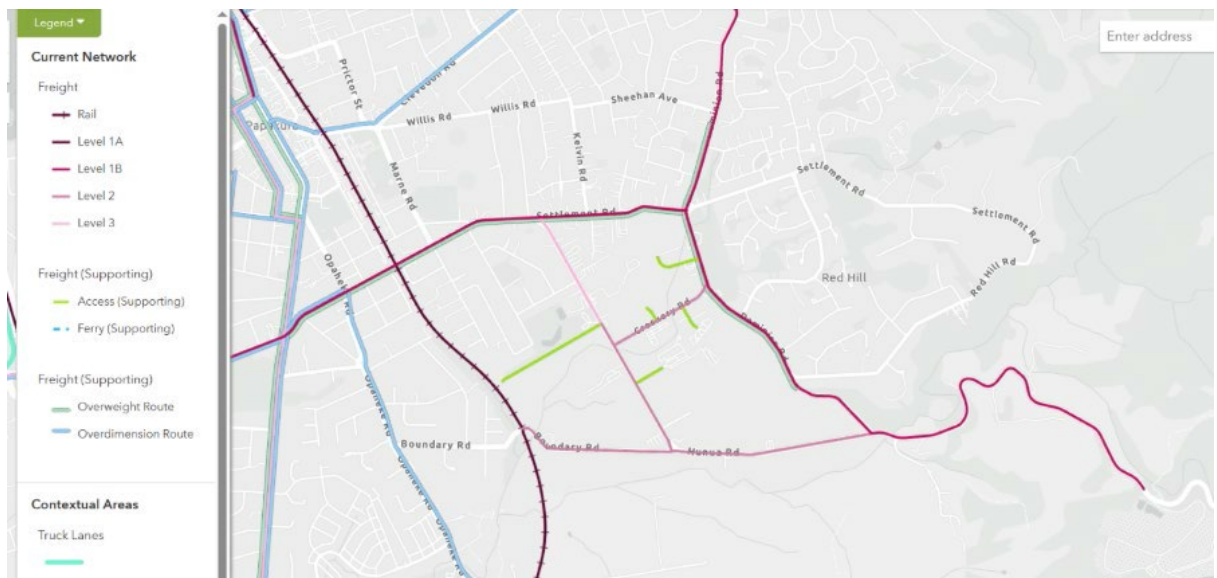


Figure 10: Excerpt from Appendix B12.4.14 Transportation Assessment Figure 3 depicting the Auckland Transport Freight Route (GIS maps)

B2.8.2 Noise

126. The existing quarry is consented to operate on a 24-hour basis, but hours for general sales are restricted to between 6:00 am and 5:30 pm on Monday to Friday and between 6:00 am and 4:00 pm on Saturdays.
127. The Quarry operates under AUP standard H28.6.2.1 which requires that all operational noise generated by the existing quarry within the SPQZ complies with the following limits when measured and assessed in accordance with the New Zealand Standards NZS 6801:2008 and NZS 6802:2008
 - At the notional boundary of any dwelling outside the SPQZ that existed at 1 January 2001 (the **pre-2001 notional boundary limits**):
 - 7:00 am to 6:00 pm on Monday to Friday: 55 dB L_{Aeq}
 - 7:00 am to 4:00 pm on Saturday: 55 dB L_{Aeq}
 - All other times: 45 dB L_{Aeq} and 75 dB L_{Amax} .
 - Noise levels received at all other sites outside the SPQZ are controlled by the following noise limits at the quarry effects line (**QEL**) as illustrated in AUP Figure H28.6.2.1.1 and reproduced below in **Figure 11**:
 - 7:00 am to 6:00 pm on Monday to Friday: 65 dB L_{Aeq}
 - 7:00 am to 4:00 pm on Saturday: 65 dB L_{Aeq}
 - All other times: 45 dB L_{Aeq} and 75 dB L_{Amax} .
128. The AUP does not specify any noise limits applying at the notional boundary of any dwelling constructed after 1 January 2001 and does not restrict the hours of operation at Hunua Quarry.
129. The noise limits applying at the QEL are 10 dB higher than the noise limit applying at a notional boundary during the day, being 65 dB L_{Aeq} . The noise limits at the QEL at night are the same as the pre-2001 notional boundary limits (45 dB L_{Aeq}).

130. The dwellings (and therefore the notional boundaries) nearest to the quarry were all established after 1 January 2001. Noise from the quarry is not subject to the pre-2001 notional boundary limits in H28.6.2.1.1 at these notional boundaries. The only control on noise from the quarry at houses constructed after 1 January 2001 are the noise limits at the QEL.

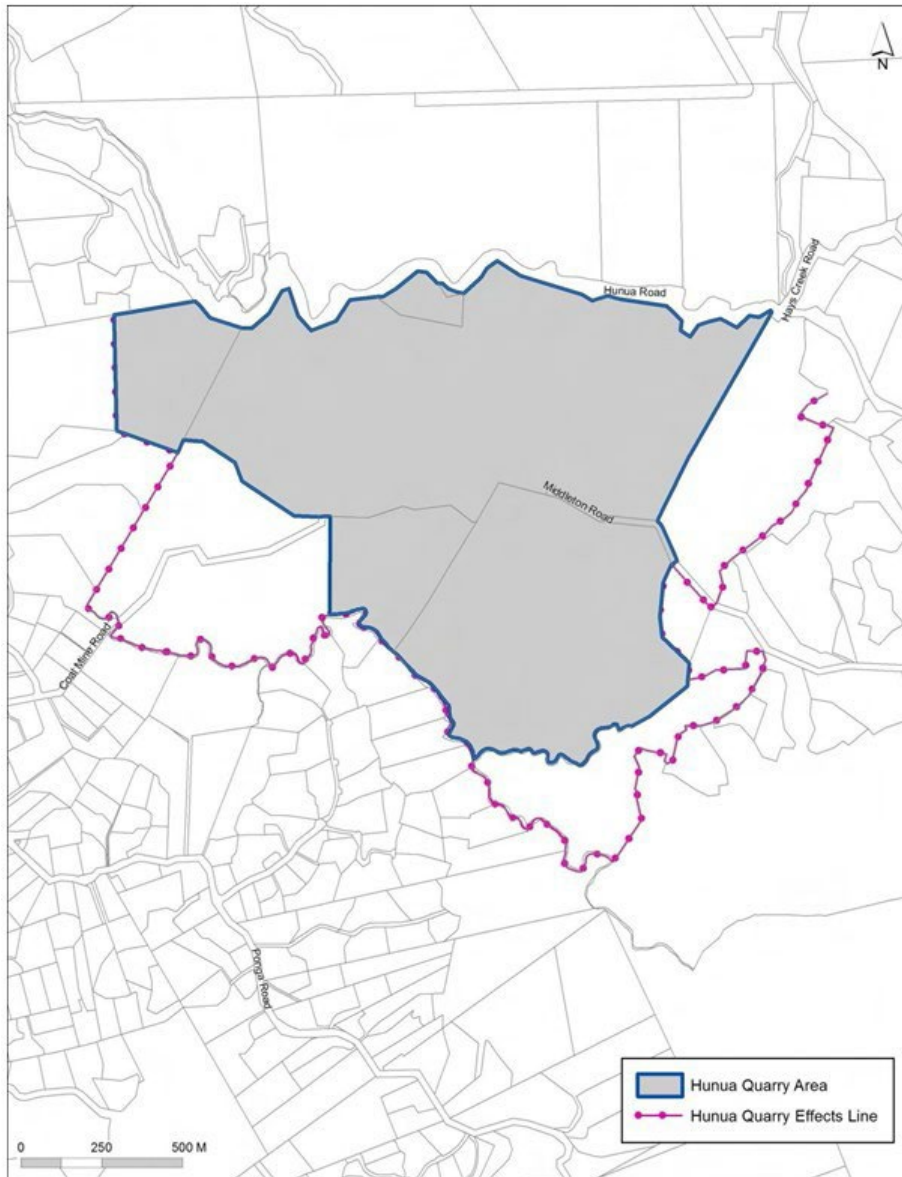


Figure 11: SPQZ H28.6.2.1. Noise Standard Figure H28.6.2.1.1 Hunua quarry effects line (Source: AUP)

B2.9 Natural Environment Overview

131. Hunua Quarry is situated in dissected hill country near the eastern boundary of the Manukau Ecological District within the wider Auckland Ecological Region. The quarry lies within the foothills of the Hunua Ranges east of Papakura, which contain the most extensive areas of native vegetation in the Manukau Ecological District (ED) (most of Manukau ED is pastoral farmland). Further eastward, the forested Hunua Ranges are encompassed within the Hunua Ecological District.

132. The Site terrain is comprised of a range of gully and steep ridge systems, leading to gradients in soil types and drainage that largely dictate the layout of vegetation communities. More recent planting and anthropogenic clearance activities also influence the makeup of these communities.

B2.10 Terrestrial Ecology

133. Several SEAs are identified in the AUP and occur within the Manukau District, with a number within the vicinity of the Site. These are described in more detail in the Ecological Assessment prepared by Boffa Miskell in **Appendix B12.4.5 Ecological Assessment (Ecological Assessment)** and below.
134. The proposed quarry development involves works (including vegetation removal, stream realignment and land disturbance) within SEA_T_5323. SEA_T_5352 is a mature example of the 'taraire, tawa, podocarp forest' (otherwise identified as WF9 forest), with taraire being co-dominant with kohekohe in this overlay area. This vegetation type occurs throughout the Auckland Region, although some of the best examples occur in the Hunua Ranges where the steep topography was unsuitable for conversion to farmland. This ecosystem type is identified as having a Regional IUCN threat status of "Endangered". The overlay is identified as approximately 615ha.
135. Various land parcels within and adjoining the Project area have vegetation covenants or similar encumbrances attached to them as shown on the survey plans at **Appendix B12.2a**. Parts of the areas identified as being subject to vegetation covenants to the east and south of the existing pit, will be impacted over time by the pit extension and associated works. To address this, the total area of land that was to be covenanted for vegetation protection as a result of the 2009 resource consents for site development (39.9ha) is proposed to be 'relocated' to two other identified parts of the landholding and those areas instead protected by way of covenant. This will consolidate the covenanted areas to integrate with wider vegetated areas. Other areas subject to vegetation covenants or esplanade strips, sit outside the project area and will not be impacted by quarry activity.

B2.10.1 Flora

136. Vegetation within the Site is dominated by species common to the adjacent Hunua Ranges, with some rarer and threatened species also found, including king fern and kawaka. Much of the understorey of the forested areas show evidence of grazing from possums and possibly ungulates, with broadleaf and podocarp seedlings clearly absent in some areas. Hardier ferns and unpalatable/divaricating shrub species dominate the otherwise-sparse undergrowth.
137. The following provides a summary of the range of vegetation types identified at the Site (and discussed in further detail in Section 3 of the Ecological Assessment in **Appendix B12.4.5**):
- Treeland or low forest dominated by tree ferns, low-stature broadleaved species, shrubs, and ferns with a mean canopy height of approximately 4m (ranging 3m – 8m). Mainly occurring in the gully and sheltered slope areas of the Site. Fits the description of the VS5 vegetation type with a regional IUCN threat status of 'Least Concern' due to its high prevalence in Auckland and across the country.
 - Kānuka forest with emergent broadleaves and podocarps, occurring on slopes and ridgelines, with a mean canopy height of approximately 5–12 m. Fits the description of early successional stage of WR9 vegetation type and the VS2 vegetation type which has a regional IUCN threat status of 'Least Concern' due to its prevalence resulting colonisation after historic and recent widespread vegetation clearance.

- Remnant taraire-tawa broadleaf forest with characteristics of tall indigenous forest and canopy heights of 18–25m. This vegetation occurs in the lowland areas of the Site and fits the description of WR9 vegetation which is considered “Endangered” under the IUCN ecosystem threat classification.
- Native planting / early successional / weedy scrub mix occurring in areas that have been previously cleared and subsequently planted or left to regenerate. Vegetation heights typically range between 2–5m.
- Low kānuka / mānuka scrub occurring mainly in flat or slumped areas and being typically 2–6m in height. Fits the description of the VS3 vegetation type which has a regional IUCN threat status of ‘Least Concern’ due to its prevalence resulting from colonisation after historic and recent widespread vegetation clearance.
- Remnant stands of kauri, podocarp, broadleaved forest, occurring in the upland to lowland areas of the Site, with canopy heights between 18–25. Fits the description of the WF11 vegetation type which has a regional threat status of “Endangered” under the IUCN ecosystem threat classification.
- Exotic species including pampas, pine and rank grasses in areas recently cleared or experiencing ongoing disturbance.

138. Figure 12 below identifies the approximate locations of the different vegetation types as they apply across the Site.

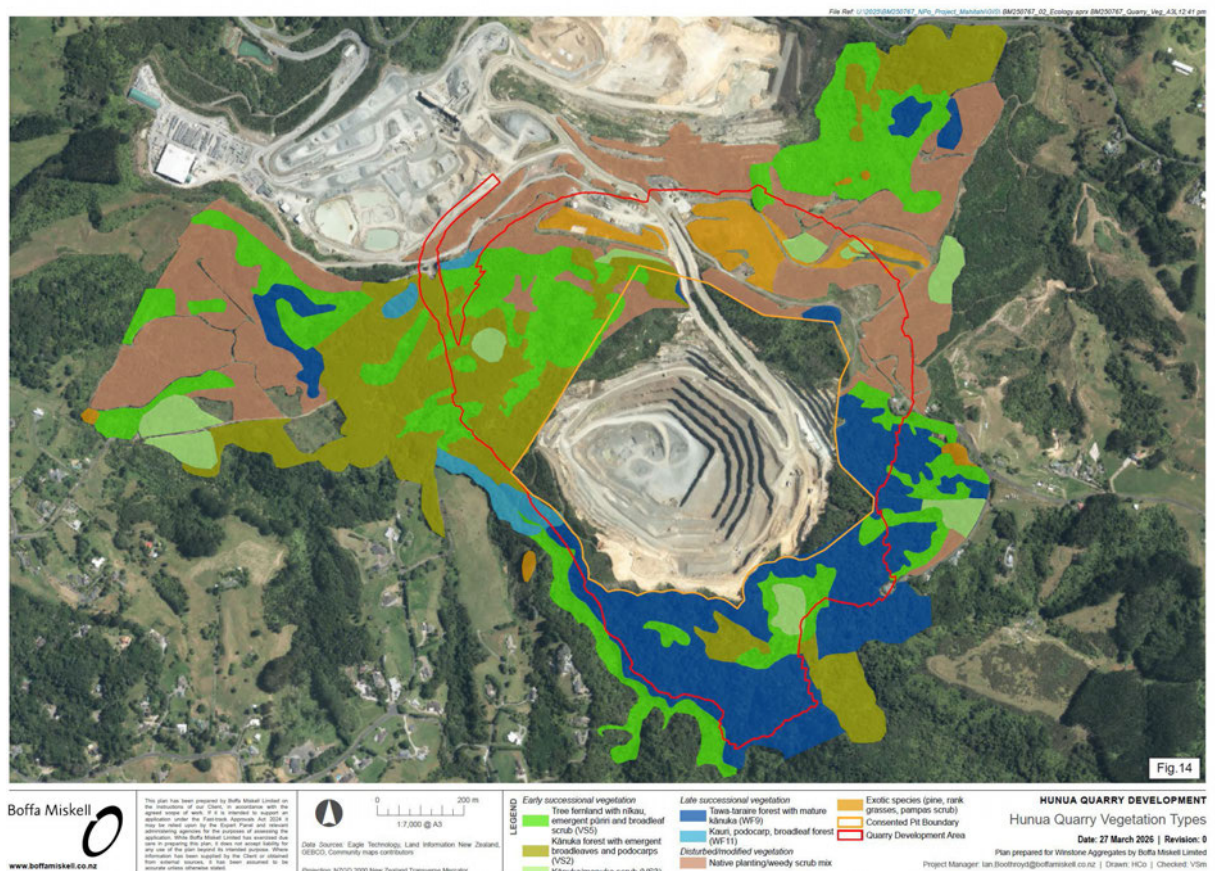


Figure 12: Location of vegetation types (refer Figure 14 in Appendix B12.4.5)

B2.10.2 Fauna

B2.10.2.1 Lizards

139. Previous surveys have identified that the elegant gecko occurs within kānuka shrublands and forest throughout the Symonds Hill area. Previous salvage and relocation of elegant geckos at Symonds Hill was undertaken between 2011 and 2025 in accordance with an approved Lizard Relocation Plan (authorised under resource consents 34132 and LU8730).
140. It is considered likely that elegant gecko may be present within the project footprint but due to the complexity and height of habitat are difficult to detect. It is considered possible that other lizard species may be present but were not detected due to low population numbers or complex habitats.

B2.10.2.2 Hochstetter's Frogs

141. While present some distance away in the Hūnua Ranges Regional Park, no Hochstetter frogs have been detected on Site. Surveys were undertaken using daytime walking transect survey methods, in general accordance with Department of Conservation ('DOC') guidance. Potential habitat was assessed as sub-optimal in many areas as crevices are armoured by silt. Overall, it is considered unlikely that Hochstetter frogs are present within the Site.

B2.10.2.3 Avifauna

142. The Ecological Assessment (**Appendix B12.4.5**) identifies that the Site provides roosting, foraging and nesting habitat for a range of 'Not Threatened' and 'Introduced' bird species commonly found in the Auckland region and across the country, including fantail, grey warbler and silvereye, blackbirds, mallards and rosella.
143. Few 'At Risk' (māpunga / black shag and pihoihoi / NZ pipit) and 'Threatened' (weweia / NZ dabchick) species have been observed within the Site, with the majority observed outside the project footprint. Due to a lack of suitable habitat at the Site, these species are not considered to be a species of concern in relation to the proposal.

B2.10.2.4 Bats

144. Previous and recent bat surveys found a lack of bat activity, indicating an absence of favoured roost trees within the Quarry Development Area. The lack of activity signifies the absence of favoured roost trees (including maternity roosts) within the Site or Landholding. However, long-tailed bats are wide-ranging, and individuals may occasionally utilise the Project location for foraging and/or solitary roosts. Long-tailed bats have a threat status of 'Threatened – Nationally Critical'.

B2.10.3 Summary of Terrestrial Ecological Values

145. In relation to the ecological values of terrestrial flora, mature forest remnants (WF9 and mature kanuka) have been assigned an overall high ecological value, particularly in relation to their representativeness, rarity/distinctiveness and ecological context. In general, the varied flora assemblage of the Site reflects the relative intactness of the forest ecosystem, notwithstanding historic forest clearance and/ or harvest that occurred across the landscape as a whole during the 19th and early 20th centuries.
146. All areas of indigenous vegetation within the Site and wider landholding (including patches of indigenous scrub and mature secondary forest eastward of the Hunua Quarry Pit that are not

encompassed within the SEA overlay) meet at least one of the AUP significance criteria and are ecologically significant.

- 147. The northern portion of the Site and the wider landholding is outside the SEA overlay and encompasses areas of early-successional indigenous plantings and weedy exotic scrub, which are of relatively low ecological value. Early successional plantings, weedy exotic scrub and exotic grass – dominated swamp do not qualify as ecologically significant.
- 148. Terrestrial fauna varies across species and across the Site, with fauna habitat values assessed as moderate due to the lack of detection of lizards, bats and frogs within the site or wider landholding. A range of indigenous birds were observed with moderate species richness and abundance. The depleted state of indigenous fauna assemblages is likely to be the result of chronic predation pressure by invasive mammalian pests.

B2.11 Wetlands

- 149. As shown in **Figure 10** below, the Ecological Assessment report identifies nine small natural inland wetlands ('wetlands') impacted by the proposal made up seven forested gully or toeslope seepages within the SEA and two which are exotic grass dominated swamps on terraces in the northern part of the Site. Wetland features within the forest are of moderate or high quality (notwithstanding some localised historic disturbance), with predominantly indigenous vegetation, intact hydrological functions, and good buffering and connectivity with the wider hydro system. The exotic grass-dominated swamps are degraded features that are poorly buffered, with poor hydrological connection because of previous quarrying activity.
- 150. Approximately 270m of the Mangapū Stream reach was deemed too steep to access, so a conservative set of wetland areas were approximated within this reach from a combination of data and extrapolation from surveys.

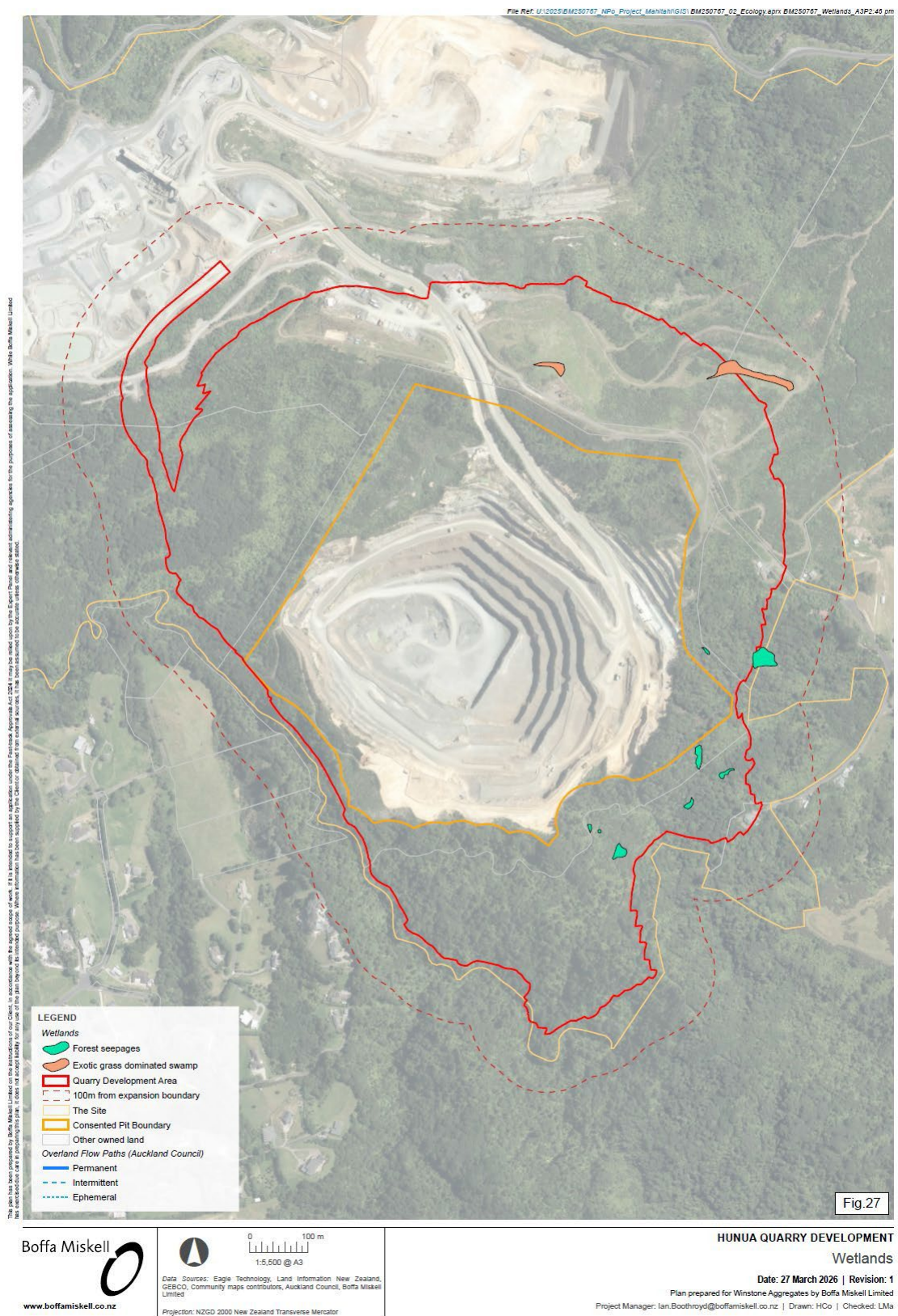


Figure 13: Wetland locations (refer Figure 27 in **Appendix B12.4.5**)

B2.12 Freshwater Ecology

151. The freshwater ecology is described in detail in the Ecological Assessment, prepared by Boffa Miskell (**Appendix B12.4.5**) and summarised below.

B2.12.1 Mangapū Stream Catchment

152. The Mangapū / Symonds Stream (the 'Mangapū Stream') is a permanent stream which forms part of the Slippery Creek catchment (along with Slippery Creek, Hays/Waipokapū Stream and Waihoihoi Stream). These discharge via Slippery Creek to the upper Pāhurehure Inlet of the Manukau Harbour beneath the Southern Motorway Overbridge.
153. Auckland Council (2015) report that, some 50% of the Slippery Creek catchment is pastoral land, over 25% of the catchment is dominated by indigenous forest and a further 5% in exotic forestry blocks. Less than 15% of the total catchment is currently built up.
154. Auckland Council (2015) describe the high land native forest streams (upper 7 km of the main channel of Mangapū / Symonds Stream), as typically 2.5 to 3m wide but up to 5m wide in places with an average depth of approximately 0.4m except for parts of the mainstem which averaged 0.7m deep with pools up to 1.3m deep. Banks averaged 0.4 to 2m high with less than 20% erosion.
155. There are a number of permanent, intermittent and ephemeral Mangapū tributaries traversing around and through the Site (as shown on **Figure 11**). The main tributaries of the Mangapū Stream flow along the south-western and southern boundaries of the Site in a west to east direction and are subject to a Natural Stream Management Area Overlay in the AUP. This area includes a narrow band of riparian vegetation on each side of the channel.
156. Sub-tributaries and overland flow paths extend from the main tributaries of the Mangapū stream and onto the Symonds Hill Pit area from the western and southern site boundaries.



Figure 14: Freshwater catchments in the vicinity of Hunua Quarry (refer Figure 28 in **Appendix B12.4.5**)

B2.12.2 Mangapū Stream

B2.12.2.1 Habitat

157. The Mangapū Stream is a predominantly hard-bottomed stream dominated by gravels, cobbles, boulders and bedrock, with a small amount of silt/sand present.
158. In the mid-reaches, the channel is some 1.5 – 5.5m wide, with depths ranging from 0.41 - 0.49m. Hydrological heterogeneity is high along the reach with a mix of riffles, runs and deep and shallow pools present. Riparian vegetation is well established with a well-developed canopy and abundant understory consisting predominately of nīkau and ponga, and smaller ferns along the stream margin, providing considerable shade to the water's surface.
159. Water quality sampling indicates generally water quality to be high across most parameters.
160. As set out in the Ecological Assessment in **Appendix B12.4.5**, sampling undertaken in 2019 found a diverse range of macroinvertebrate communities, with up to 34 taxa recorded, including dominant communities (namely the single-gill mayfly *Deleatidium*) and sensitive EPT taxa (47%) found in good habitat and water quality conditions.
161. SEV testing undertaken between 2010 – 2020 indicate a high-quality in-stream habitat with high-ecological function.

B2.12.3 Mangapū Stream Tributary

162. The Mangapū Stream Tributary (the 'Mangapū Tributary') which is subject to the proposed realignment, flows around the south of the proposed pit, in an east-west direction and is located within an area of native forest (which is predominately subject to SEA_T_5323). The Mangapū Tributary is classified as a 'permanent stream'.
163. In the lower reaches of the stream, channel width ranges from 0.9 – 5.7m in width, with depths ranging from 0.02 – 0.9m. Hydrological heterogeneity is high along the reach with a mix of runs, riffles and deep and shallow pools present. Large boulders and bedrock are abundant, with cobbles and gravels common. Small streamside gravel bars are present. Stream banks are highly variable, from 0.2m in some locations to >2m high near vertical in other areas. Riparian vegetation is well established with a thick canopy and abundant understorey, providing shade to over 90% of the stream surface.
164. In the mid reaches, the channel is some 1.5 – 5.5m wide, with depths ranging from 0.41 - 0.49m. Hydrological heterogeneity is high along the reach with a mix of riffles, runs and deep and shallow pools present. The stream substrate is dominated by a strong mix of cobbles, gravel, bedrock and silt /sand with fewer large boulders than the lower reaches. Riparian vegetation is well established with a well-developed canopy and abundant understory. This vegetation provides shade to approximately 75-85% of the water surface, with some areas of open sunlight. The riparian community consists of abundant nikau and ponga and abundant smaller ferns along the stream margin.
165. The headwater streams, not subject to realignment, occur in an area of varied topography including a series of gullies running generally north to south and are classified as ephemeral, with some intermittent reaches also identified. These channels were typically narrow and shallow with stream beds predominantly silt/sand and high stream shade.

B2.12.3.1 Mangapū Tributary Habitat

166. EDNA results identified the presence of climbing fish, including the Longfin Eel (At Risk – Declining), Shortfin Eel (Not threatened) and Banded Kōkopu (Not threatened). Detection strength of eels was greatest in the lower-mid-reaches of the tributary, and the reverse for banded kokopu. An absence of swimming species was confirmed and no introduced or pest fish were detected. The eDNA also confirmed the presence of two mayfly species both of which are classified as Naturally Uncommon.
167. Macro invertebrate communities were indicative of high-quality habitat and water quality, with MCI and QMCI scores ranging from 125 – 115 and 6.81 – 6.65 respectively. There was also a high proportion of pollution-sensitive EPT taxa, however also abundant were taxa indicative of good habitat and water quality. A wide range of vegetation was observed around the stream.
168. SEV testing scores indicate a high-functioning stream with very high scores for hydraulic and biodiversity functioning.

B2.12.4 Mangapū Tributaries 3 and 4

169. The proposed Stage 2 haul road crosses two sub-catchments of the Mangapū Tributary 3, a smaller one to the north and a larger to the south. The northern stream (Tributary 4) is identified as intermittent (becoming ephemeral to the east). The southern stream (Tributary 3) is identified as permanent with a continual flow. Tributary 3 is now discussed further.

B2.12.4.1 Tributary 3 Habitat

170. The larger permanent stream is shallow and rocky with areas of silt, and the stream banks were vertical and heavily eroded, with projecting tree roots, indicating substantial scouring flows. Upstream the stream becomes very steep with bedrock cascades and waterfalls. Riparian vegetation consists of mature native vegetation, which together with the steep terrain provided very high shade. Water quality is good, with moderate water temperature and high dissolved oxygen and clarity.
171. The New Zealand Freshwater Fisheries Database includes records in the vicinity which indicate longfin and shortfin eels and Cran's bully. However, recent surveys only detected shortfin eel, banded kokopu and koura (none of which are identified as "Threatened").
172. Although macroinvertebrate communities had a moderate abundance and high metric values in the good or excellent range, Taxa Richness and MCI values are below average. Periodic high flows and natural associated channel erosion and sediment deposition mean that overall the values are "sub-optimal" for Tributary 3.
173. The overall SEV score is 0.76, which is towards the upper end of the "Good" range. However, the incised channel impacts scores for hydraulic function (0.63) and habitat provision (0.74), and sub-optimal conditions for fish and invertebrates results in a biodiversity function score of 0.65. Overall, results are summarised as good, but sub-optimal for a native forest stream.

B2.13 Contamination

174. A Combined Preliminary Site Investigation (PSI) and Detailed Site Investigation (DSI) was undertaken by PDP and can be found in **Appendix B12.4.3** (Contaminated Site Investigation). The CSI identified specified areas of potential concern within the Quarry Development Area (shown in **Figure 12** below). The assessment of the soil and potential sources of contamination is summarised below.
175. The vast majority of the Quarry Development Area is not considered to contain, or have previously contained, any HAIL activities (being those identified on the Hazardous Activities and Industries List).
176. The areas of potential concern are limited to discrete areas around the stockyards (identified in the PDP report as the C+R Rack, Graveyard and extension of Graveyard areas), the Hay Paddock OBDA area and the residential building / structures at 193 Middleton Road. However, further investigations concluded that the Hay Paddock OBDA area and 193 Middleton Road have not supported HAIL activities, but the following activities may have occurred within the stockyards:
- HAIL Activity A17 – storage tanks or drums for fuel, chemicals or liquid waste
 - HAIL Activity A4 – motor vehicle workshops.
177. Consequent soil testing revealed that soil samples within the stockyard areas contain concentrations of heavy metals, PAH and/ TPH in excess of background criteria which does not comply with Regulation 5(9) of the NES-CS.

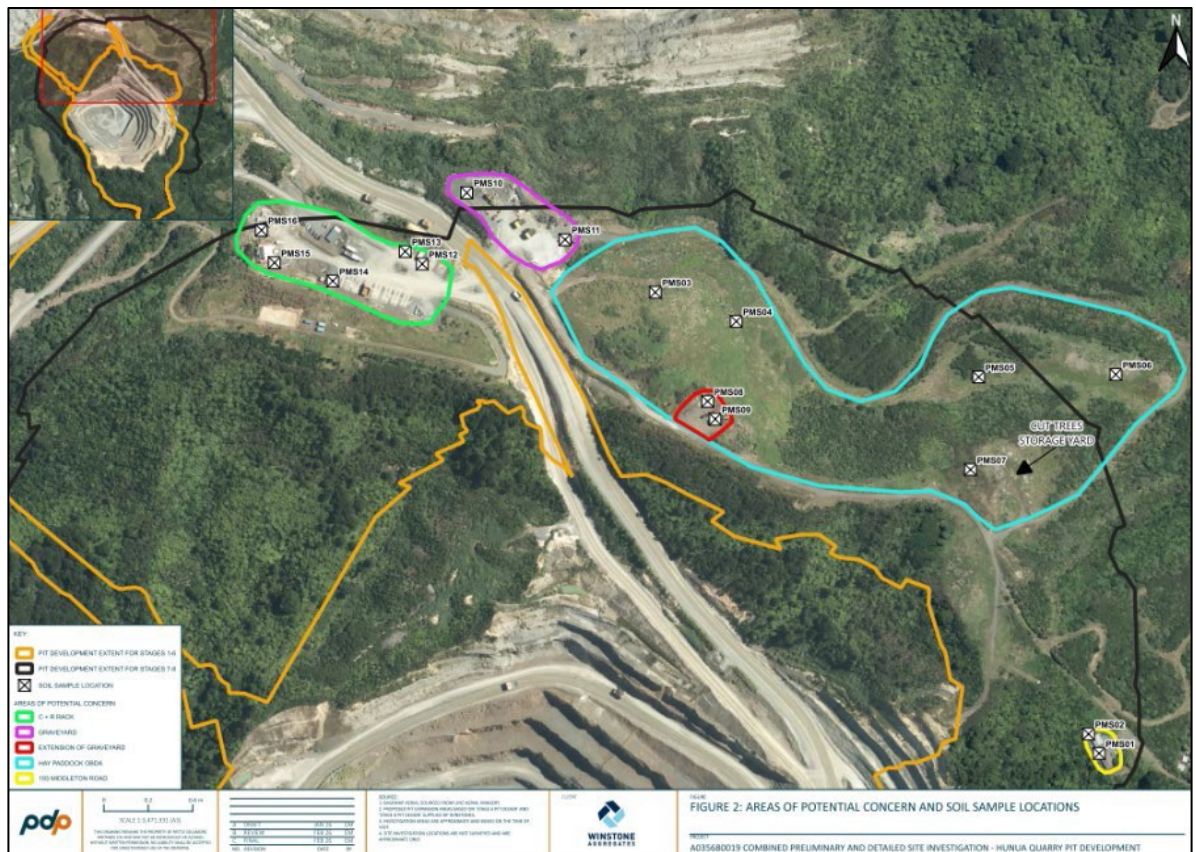


Figure 15: Areas of potential concern within the Quarry Development Area. (Source: Combined Preliminary and Detailed Site Investigation - Hunua Quarry Pit Development, prepared by PDP – refer **Appendix B12.4.3**)

B2.14 Treaty Settlements and Māori Interests

178. Clause 5(1)(i) of Schedule 5 of the FTAA requires the provision of information about any Treaty Settlements that apply in the project area, including:
- (a) The identification of the relevant provisions in those Treaty settlements; and
 - (b) A summary of any redress provided by those settlements that affects natural and physical resources relevant to the project or project area.
179. This information has been supplied on a global basis for all approvals required and is contained with the Substantive Application Overview at Section A2.11.
180. As the Project does not involve any activities within the coastal marine area, there is no requirement to provide 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 (MACA); nor is there any requirement to consider planning documents promulgated under s 85 MACA.
181. The following iwi have a Treaty Settlement with either a statutory acknowledgement area or an area of interest within the Project area:
- Ngāti Tamaoho - the Ngāti Tamaoho Claims Settlement Act 2018
 - Ngāi Tai ki Tamaki - Ngāi Tai ki Tamaki Claims Settlement Act 2018
 - Ngāti Paoa - Ngāti Paoa Claims Settlement Act 2025

- Tāmaki Makaurau Collective - Ngā Mana Whenua o Tāmaki Makaurau Collective Redress Act 2014
- Waikato-Tainui - Waikato Raupatu Claims Settlement Act 1995
- Te Ākitai Waiohua - Te Ākitai Waiohua Deed of Settlement 12 November 2021
- The Marutūāhu Iwi Collective Deed of Settlement initialled on 27 July 2018
- Ngaati Whanaunga - Ngaati Whanaunga Deed of Settlement 25 August 2017
- Ngāti Tamaterā - Ngāti Tamaterā Deed of Settlement 20 September 2017
- Ngāti Te Ata - Ngāti Te Ata Terms of Negotiation 29 Jun 2011
- Ngāti Maru (Hauraki) - Ngāti Maru (Hauraki) Deed of Settlement 8 September 2017.

182. Further details on their interests can be found in the Iwi Engagement Report (**Appendix A6.7**) prepared by JW Wikaira Consulting.

B2.14.1 Statutory Areas

183. Schedule 5, clause 5(1)(b)(i) requires information on whether the site is within or adjacent to a statutory area as defined in the relevant Treaty settlement Act.
184. A statutory acknowledgement relevant to the Project site is recorded in Schedule 1 of the Ngāti Tamaoho Claims Settlement Act 2018 and is also identified at Appendix 21 of the AUP (Operative in Part).
185. The Project site is located within the statutory acknowledgement area for the Otūwairoa Stream and its tributaries, including the Waipokapū Stream, Mangapū Stream and Waihoehoe Stream.
186. This is the only identified statutory acknowledgement area specific to the Project site. Ngāti Tamaoho have been consulted in relation to the Project, and a record of engagement is provided in this report.

B2.14.2 Ngā Rohe Moana and Protected Customary Rights Areas

187. Schedule 5, clause 5(1)(b)(ii) and (iii) requires information on whether the site is within or adjacent to (i) ngā rohe moana o ngā hapū o Ngāti Porou, or (ii) a protected customary rights area under the Marine and Coastal Area (Takutai Moana) Act 2011.
188. The Project area is not within or adjacent to ngā rohe moana o ngā hapū o Ngāti Porou.
189. The Project area is not within or adjacent to a protected customary rights area under the Marine and Coastal Area (Takutai Moana) Act 2011.

B2.14.3 Customary Marine Title

190. Schedule 5, clause 5(1)(j) requires a list of any relevant customary marine title groups, protected customary rights groups, ngā hapū o Ngāti Porou (where relevant), or applicants under the Marine and Coastal Area (Takutai Moana) Act 2011.
191. The Project area is not within or adjacent to areas subject to customary marine title or protected customary rights under the Marine and Coastal Area (Takutai Moana) Act 2011. Accordingly, there

are no relevant customary marine title groups, protected customary rights groups, or applicants under that Act associated with the Project site.

B2.15 Archaeological Values

B2.15.1 Māori Settlement

192. The Archaeological Effects Assessment undertaken by Ellen Cameron (main author) and Mr Clough-Macready (co-author) of Clough & Associates Ltd in **Appendix B12.4.2** (Archaeological Assessment) identifies that the Site is located in the Hunua area, which is known to have been occupied by Tainui iwi and hapu groups since the 14th century. The area was densely forested and most activity occurred on the fringes of the forest due to the rugged interior in the interior and the belief by some Māori that parts of the central portion were tapu. The rivers and streams in the area provided transport links to parts of the forest from the east and west coast.
193. The forest was used as a food source, owing to its plentiful bird life, a timber source for waka, and a place of refuge in times of unrest. It is believed that early habitation occurred mainly around the lower eastern slopes of the Ranges towards the east coast, along the southern edge, and in the north around the estuary of the Wairoa River.

B2.15.2 European Settlement

194. The Archaeological Assessment also sets out a detailed description of European activity in the area. In brief, in the 1830's, early traders, missionaries and explorers began to appear on the coasts to the east and west of Hunua, but it was not until 1850's that European settlement began to push south from Auckland. European interest in the land began in 1854 with the sale of the Hunua Block, later known as the Hunua Parish. However, settlement was disrupted during the New Zealand Wars in the 1860's, but even after that time the rugged terrain, poor soils and difficult access meant that settlement of Hunua was slow. It appears that most land purchasers took up farming or forestry with some limited extraction of coal and other minerals, and potentially the manufacture of bricks on Allotment 38 Parish of Hunua. There is no evidence of permanent settlement by European settlers on the properties contained within the proposed quarry expansion area.

B2.16 Land Ownership and Occupancy (Schedule 5, Clause 5(1)(d))

B2.16.1 Project Site Landowners and Occupiers

195. The entire site is owned and occupied by Fletcher Concrete and Infrastructure Limited (as identified in section B2.1) Winstone Aggregates are a division of that company. The address for service for FCIL is the address for service for Winstone Aggregates.
196. In accordance with Schedule 5, Clause 5(1)(d) of the FTAA, the name and addresses of owners and occupiers of the Site, and their addresses are set out in **Appendix B12.2a** on survey plans prepared by CKL Limited:
- (a) FCIL

- (b) Auckland Council is the legal owner of the paper road corridor within the Quarry, shown on [refer to the survey plan entitled "Title Interest Plan, Dwg No. 1504 Rev. 5" the address for service of the Auckland Council is Private Bag 92300, Auckland 1142.
- (c) Occupiers: Firth Industries (A division of FCIL) occupy part of 489 Hunua Road (Part Allotment 79 Parish of Hunua and Lot 2 Deposited Plan 55769). The land occupied is used for a concrete block making facility as marked on the Existing Quarry Operations map in **Appendix B12.2b**. FCIL have provided their written approval refer section B1.6 and in **Appendix B12.3c**.

- 197. Counties Energy (Formally Counties Power) (have electricity lines on the site discussed further below in Section B3.4.4).
- 198. The wider Site (namely 489 Hunua Road) is partially located within Designation No. 200 in the AUP(OP). Designation No. 200 provides for the use of the land at the vicinity of Harvard Lane, Ardmore and an area surrounding Ardmore Airport *"to provide for the efficient operation and growth of Ardmore Airport by enabling airport activities and flights while defining airport approach and landuse controls"*. The requiring authority is Ardmore Airport Limited. The Applicant has consulted with Ardmore Airport Limited and has received written confirmation from the Airport CEO that the proposed Hunua Quarry Development will not prevent or hinder the designated purpose (**Appendix B12.12**).

B2.16.2 Adjacent Landowners and Occupiers

- 199. In accordance with Schedule 5, Clause 5(1)(d) of the FTAA, the name and addresses of owners and occupiers on the land adjacent to the Site has been provided in **Appendix B12.6** and the legal descriptions of these properties can be found in **Appendix B12.2a**. A map is included in **Appendix B12.6** showing the adjacent land identified.
- 200. The land adjacent to the current Site is identified here; namely properties that directly abut the site, or that are separated by roads. These have been identified in accordance with the direction provided in the fast-track guidance material⁶. Of the 43 properties on land located adjacent to the Site, eight are owned by FCIL, one by His Majesty the King and the remaining are privately owned. The full names and addresses of the owners of land adjacent to the site, where this information is known, have been provided in **Appendix B12.6**. The records of ownership as set out in **Appendix A6.9** were sourced from Land Information New Zealand in May 2025
- 201. All adjacent residents received a letter from Winstone advising them of the Project. Door knocking was also conducted by Winstone representatives in late February and early March 2026 as part of project consultation, including an effort to identify if occupiers of the adjacent properties were different to the legal owners of the properties listed on title documents for example, if they were tenanted). However not all of the residents were home and only limited responses were received to the letters. The information about the identity of adjacent landowners provided in **Appendix B12.6** contains the information that the Applicant has been able identify after reasonable inquiry. (as per cl.5(d)(ii)).
- 202. After reasonable inquiry, the names and contact information of all owners and occupiers of the land adjacent to the Site cannot be provided (Schedule 5, Clause 12(f)(ii))

⁶ https://www.epa.govt.nz/assets/Uploads/Documents/Fast-track-consenting/FTC_GUIDANCE_MATERIAL_Identifying_Adjacent_Land.pdf

B3. Proposed Activity

203. This section of the application is a summary of the key elements of the Project provided in accordance with clause 5(1)(a) 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.

B3.1 Project Overview

204. The Hunua Quarry Development (“the Project”) of the Symonds Hill Pit represents a long-term investment in Auckland’s infrastructure supply chain. It secures critical construction materials for up to 80 years (depending upon market demand) while consenting key moves required to be able to access that resource, both expanding and deepening the pit, implementing enhanced water management and environmental outcomes through the realignment of a tributary to Symonds Stream, and a new haul road. The project demonstrates Winstone Aggregates’ commitment to sustainable quarrying, best-practice environmental management, and partnership with mana whenua and local stakeholders under the Fast-track Approvals framework.
205. The Project will integrate with Hunua’s existing site’s processes, including the processing plant, environmental, and administrative facilities. The application also seeks to realign Winstone’s existing consents and management plans, for more efficient operation and extraction. All management plans and monitoring frameworks will form part of the Hunua Quarry Environmental Management System which governs compliance, reporting, and adaptive management procedures.
206. The Hunua Quarry Development is designed to expand the Symonds Hill Pit to access additional greywacke resources and enable production capacity of up to 5.4 million tonnes per annum (Mtpa) of processed aggregate. It will require the following components:
- Deepen the pit progressively to an ultimate floor elevation of approximately -50 m RL, enabling quarrying beyond that in later years to access further resource.
 - Realign approximately a 1200 m length of a tributary to Mangapū (Symonds) Stream during Stage 1 to enable the safe expansion of the extraction footprint while achieving ecological and hydrological improvements. The ecological compensation needed for this work will also occur in the early stages of the Project.
 - Construct new sediment retention ponds, haul road, drainage networks, and stream tributary realignment integrated with the existing quarry systems.
 - Rationalise the areas of existing indigenous vegetation to be protected by covenants on the Site.
 - Removal of 44.46ha of indigenous vegetation, associated with the stripping of overburden and associated offsets.
 - Implementation of progressive rehabilitation (where practicable), ecological compensation and stream enhancement measures throughout quarry development. Winstone will ensure that all ecological impacts are appropriately managed, offset and/or compensated for, in accordance with best practice.

- Construct the western haul road to provide a more efficient connection between the pit and the processing yard.
- Provide for some in-pit crushing to enable a greater volume, and more efficient, processing of aggregate.
- Provision for the placement of a greater volume of overburden within the Site.
- Upgrade the site access to ensure the safe and efficient operation of Hunua Road.
- Maximise processing and operational hours, while managing effects to acceptable levels.
- Enable quarry development below RL-50m as part of the long-term development of the Symonds Hill Pit, recognising that this deeper resource would only be accessed once the earlier stages of the pit have been quarried. The final Life of Quarry Strategy will be confirmed prior to any excavation below RL-50m and will detail further investigations necessary to ensure that adverse environmental effects associated with later-stage extraction and/or rehabilitation are appropriately identified, assessed, and managed (including obtaining any regional consents required).
- Undertake a boundary adjustment as Winstone has acquired part of 163 Middleton Road (Lot 6 DP152736) to assist with mitigating effects on this property. Due to its abnormal shape, the portion of the property that has been purchased would be surrounded by quarrying.

207. The proposed works are confined to Winstone-owned land and will use the existing processing, stockpiling, and dispatch facilities located in the main operations area. No new external access or public infrastructure is required.

208. The Managed fill operation will be undertaken as per Consents LUC60356962 and DIS60326961 as no changes are proposed to this operation or the conditions of those consents.

B3.2 Quarry Development

209. It is proposed to develop the Symonds Hill Pit to enable the continued operation of the quarry, providing critical aggregate resource to the Auckland region that will be used to construct regionally and nationally significant projects including roads and infrastructure. Refer to the plans of the proposal in **Appendix B12.3a** for staging drawings and engineering drawings, including:

- (a) Overburden thickness;
- (b) Stage 1 – 8 pit design with In-pit backfill design for stage 8;
- (c) Stage 1 stream diversion bridge plan and cross section;
- (d) Stage 2 Western Haul Road alignment and footprint and cut and fill contours; and
- (e) Drill hole locations.

210. The proposed development initially focuses on the southern end of the quarry complex due to favourable stripping ratios i.e. there is less overburden in this part of the Site. The new extraction footprint will extend the existing Symonds pit approximately south and east first into the Rural: Rural Mixed Zone (as per the AUP), followed by areas to the north and west, which has been subject to some historic overburden placement and native planting (refer to **Appendix B12.2b** Location Plans, Figure 4). The area to the south and east is located within an ONL and the Project will affect 6ha of the total 394ha or 1.5% of the Ponga Road ONL.

211. This expansion will necessitate the realignment of a tributary of Mangapū Stream, to allow for the pit expansion that will require earthworks, clearance of indigenous and exotic vegetation, ecological offsetting and compensation and the removal and disposal of overburden. The Project will also trigger the need for additional overburden capacity within the Site (during the later stages) and changes to water take volumes, and to discharge treatment and locations.
212. It is also proposed to construct a new western haul road from the Symonds Hill Pit to the existing processing yard. However, the proposal will utilise the current site access (with an upgrade to add a right turning lane), processing facilities, staff facilities and Coal Mine Road bore. Table 6 sets out an overview of the proposal:

Table 6: Overview of the development the Symonds Hill Pit

Design Parameter	Description
Quarry Footprint	100–110 ha
Maximum Depth	-50 RL m
Bench Height	10–15 m
Bench Width	9–20 m
Resource	Waipapa Group Greywacke
Total Resource	>225 million tonnes
Overburden Volume	24 million m ³ / 24,306 kbcm
Average Production	2.8 Mtpa
Peak Production	5.4 Mtpa
Life of Quarry	Up to 80 years
Stream Realignment	~1200m of a tributary of Mangapū Stream

B3.3 Staging and Programme

213. The Symonds Hill Pit development will occur in eight indicative stages (**Appendix B12.3**) to allow continuous production while progressively implementing environmental mitigation and rehabilitation. However, to enable operational flexibility and the need to respond to market conditions, the staging and programme may not be followed sequentially.
214. The stages are therefore indicative only and provide for the development of the existing pit to a depth of (at least) RL-50. As the Life of Quarry Strategy identifies, development below RL-50 or beyond the 35-50-year horizon relies on a range of factors that will need to be the subject of further investigation alongside the renewal of/obtaining the various regional consents required.
215. Table 7 and Figure 16 below identifies each stage, an overview of the activities to be undertaken and whether these are part of the enabling works or '*business as usual*' quarrying activity.

The time required to achieve each stage is also set out, although this is approximate and no requirements or conditions are proposed to be based upon such timeframes.

Table 7: Indicative stages of development

Stage	Activity	Nature of the works	Approximate duration (years)
1	Tributary realignment including the construction of a temporary bridge.	Construction works	4
	Stripping campaign to the northwest (NW), -, occurs concurrently with the tributary realignment. Provided for under existing consents.	Extraction and processing	1-4
2	Stream realignment completed – the temporary bridge will be removed (see Figure 14 below).	Construction works	1
	NW cut down to 105RL. Provided for under existing consents.	Extraction and processing	
	Construct the western haul road.	Construction works	
3	Incremental stripping campaigns: south from current pit crest towards stream diversion down to 120RL	Extraction and processing	1
4	Incremental stripping campaigns: southwest of the stream diversion and adjacent to the southern site boundary	Extraction and processing	43-73
5	Incremental stripping campaigns: southern boundary towards the current pit	Extraction and processing	
6	Incremental stripping campaigns: in an anticlockwise direction, extending the pit to the south and northwest and deepening the pit	Extraction and processing	
7	Realign the western haul road, so that it runs, for a short distance, along the southeast extent of the pit. This will enable the pit to extend to the northwest.	Construction works	
	Incremental stripping campaigns: in an anticlockwise direction, extending the pit to the southwest and northwest and deepening the pit	Extraction and processing	
8	Incremental stripping campaigns: in an anticlockwise direction, extending the pit to the northwest and north.	Extraction and processing	

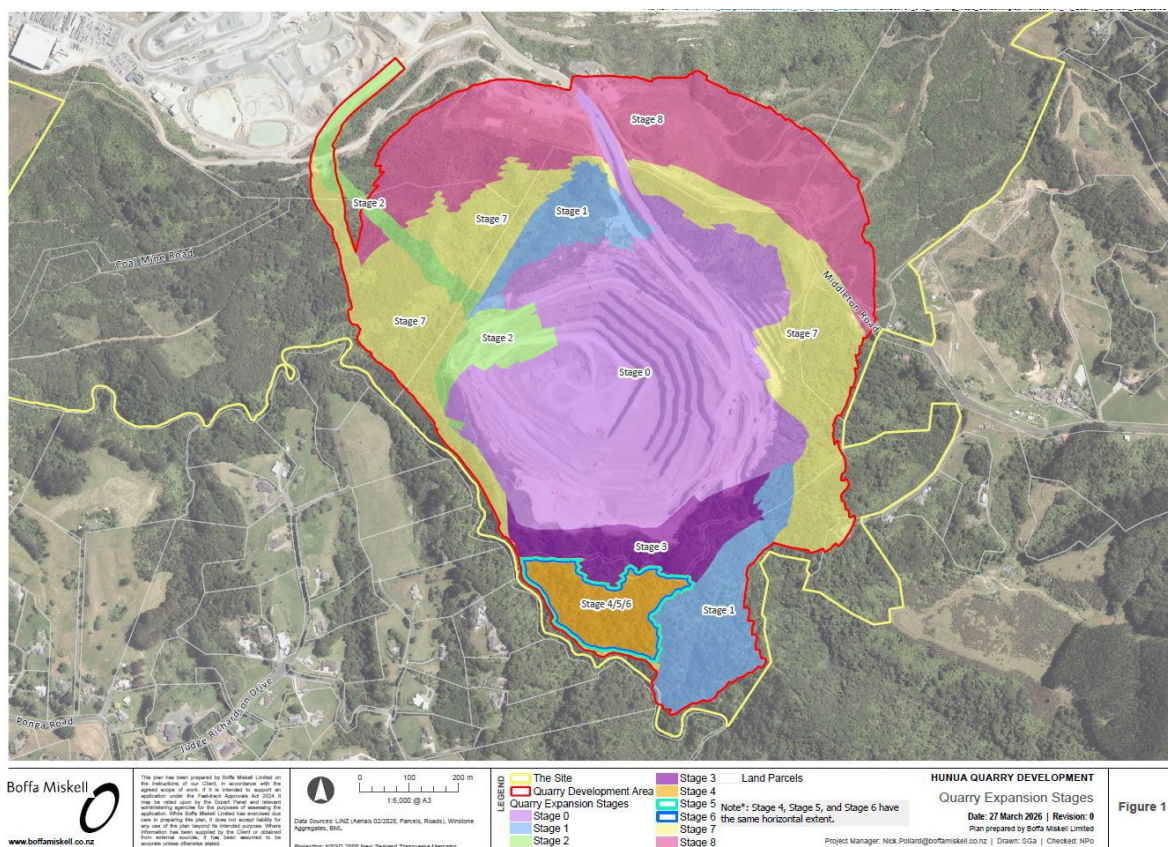


Figure 16: Staging and Indicative Life-of-Quarry Development Plan (**Appendix B12.3 Plans of proposal, Quarry Expansion Stages**)

B3.4 Construction Works (Pre-Extraction)

216. Prior to extraction, it is necessary to undertake enabling works necessary to provide safe and efficient access to the aggregate resource, restoration of ecological values and minimising impacts on adjoining neighbours. These works are set out below.

B3.4.1 Mangapū Tributary Realignment

217. A new alignment of a tributary to Mangapū Stream will be established along the southern boundary to accommodate the pit expansion. The original tributary is approximately 1200 metres in length. The realigned tributary will be approximately 570 metres. The realignment will create a meandering, naturalised channel with riparian vegetation, in-stream habitat features, sediment control devices (if required) and separation from operational surface water controls. The new stream channel will be fully commissioned before any diversion of water occurs.

218. Key design objectives include:

- Integration of flood management strategies to mitigate impacts on the quarry and surrounding areas.
- Replication of stream and riparian habitats found in the existing Mangapū Tributary.
- Inclusion of appropriate stream plant species to promote biodiversity.

219. Initially, it is proposed to install a 7m wide bridge to provide access to the works area. This will ensure that the tributary remains intact prior to the new tributary being constructed and fully commissioned. Vegetation clearance may be required and will commence once gecko salvage has been undertaken and outside kereru nesting season (September to April). Approximately 5.5ha of vegetation (including low kanuka shrubland, tall kanuka forest, and mature podocarp-broadleaved forest) will be removed during the first season of works to enable machinery to access the tributary and works area. The bridge will be installed during April or May when water flows are low and once vegetation clearance and gecko salvage have concluded.
220. Once vegetation clearance has commenced, baseline and detailed topographical surveys can be undertaken to inform the design of the required earthworks. Sediment control infrastructure will be installed during the earthworks season (October-April) and then the 10m wide access road on the western side of the future tributary alignment will be constructed. Runoff containing sediment will initially discharge to existing 150RL ponds. Once, the clearance of vegetation has been completed, a new sediment pond will be constructed at the same location as the 150RL ponds and have the same discharge location.
221. The crest/starting position of the overburden stripping will be established, ensuring a minimum 10m offset from the neighbouring property boundary. The stripping of overburden will occur from the top of the slope above the access road, working down towards the existing quarry pit. The soil and overburden that can be free-dug (i.e. no drill and blast) will be removed first using a 100t excavator and 100t ridged axel trucks. A 10m high noise bund will be retained at the southern end of the cut to provide noise and dust mitigation. This will be lowered as the earthworks progress down the slope, with the bund being removed to enable the formation of the discharge point of the diversion. A total of approximately 900 BCM of overburden material will be removed to the Hunua OBDA.
222. The aggregate will then be extracted creating a series of benches as per standard quarrying practice: requiring drill and blast to then dig and cart the product to the processing facility. The batter faces will be designed to be 10m in height @ 50° with 7m benches above the diversion to the east and west. A total of approximately 420,000 BCM of rock will be removed which will be used as production feed and sold. The last bench of this stage will be at least 30m wide enabling sufficient space to create a meandering tributary with riparian planting and construct an access road to the west of the new tributary alignment. The 30m wide bench will enable:
- A 1m offset from toe of eastern slope, and
 - 19m wide high flow stream channel, and
 - 1m wide low flow channel that meanders within the 19m wide high flow corridor, and
 - 10m wide access road on western side of diversion corridor; and
 - 470m of stream length @ 1:16.6 grade from inlet to outlet (not including meanders and 570m including meanders).
223. The west facing bench will be covered in topsoil and planted or hydroseeded to improve visual amenity of the cut face and improve integration with backdrop of the outstanding natural landscape.
224. The new channel will be constructed in fractured rock and will be created by blasting the rock to create a channel that is deeper than the proposed finished level and built back up with a low permeability liner and rocks to prevent the channel seeping into the rock.
225. The channel will have two main components: a large out-of-bank flood channel incorporating a smaller, meandering low flow channel. The new flood channel has been designed to the following parameters:

- The stream cut will convey the 1% AEP flow with climate change to 3.8 degrees of warming and include a minimum of 500mm of freeboard below the proposed haulage road on the true right bank.
- A meandering channel designed to convey regular rainfall events up to the mean annual flood.
- Waterfalls / cascade sequence at the tie in with the existing upstream channel (Mangapū Tributary) to allow for the level transition.
- A low flow channel in the base of the meandering channel designed to accommodate minimum flows to sustain aquatic life.

226. The entire flow corridor including the channel will be lined with low permeability material and account for regular flow conditions and seven-day low flow conditions. The upper section of the stream will range from 0.5 - 4m wide with good mix of cobbles, gravel, bedrock and silt /sand and few boulders. The lower section will range from 0.5 - 2.5m wide with a dominance of large boulders with mix of cobbles, gravel, bedrock and silt /sand. Waterfalls are needed to address the elevation differences at the upstream and downstream ends of the stream diversion and to provide some grade variation within the stream. They will typically be 1 - 3m high (suitable for native climbing fish) and make up 5 - 10% of the total stream length profile. Rock cascades will make up approximately 5 – 15% of the stream profile with height and widths ranging from 0.5m to 1.5m. The gradient is typically moderate and will be used to create changes in grade.
227. To enable planting in the riparian margins/flow corridor, topsoil will need to be spread and stabilised with indigenous planting (similar to that being cleared) and boulders and rocks. The boulders and rocks within the new channel and flow corridor may be reclaimed from the current streambed. Once the channel is complete, water from the existing tributary will be diverted to the new tributary. This will be undertaken in stages with the Mangapū Tributary being blocked and water gradually directed to the new channel, using sandbags, geotextile fabric and rock to create a barrier. As the flow into the Mangapū Tributary is reduced and eventually stopped, a fish recovery plan will be implemented. This is in general accordance with the separate Stream Realignment Management Plan, which details the implementation of the realigned stream.
228. The works will take approximately 4 years, with the tributary proposed to be commissioned in June 2031 and will form part of the enabling works, reliant upon the long-term construction noise limit.
229. Engagement with Ngāi Tai ki Tāmaki, Ngāti Te Ata, Ngāti Tamaoho, and Te Ākitai Waiohū is ongoing, focusing on cultural monitoring during stream works, and long-term stewardship of the riparian zones.

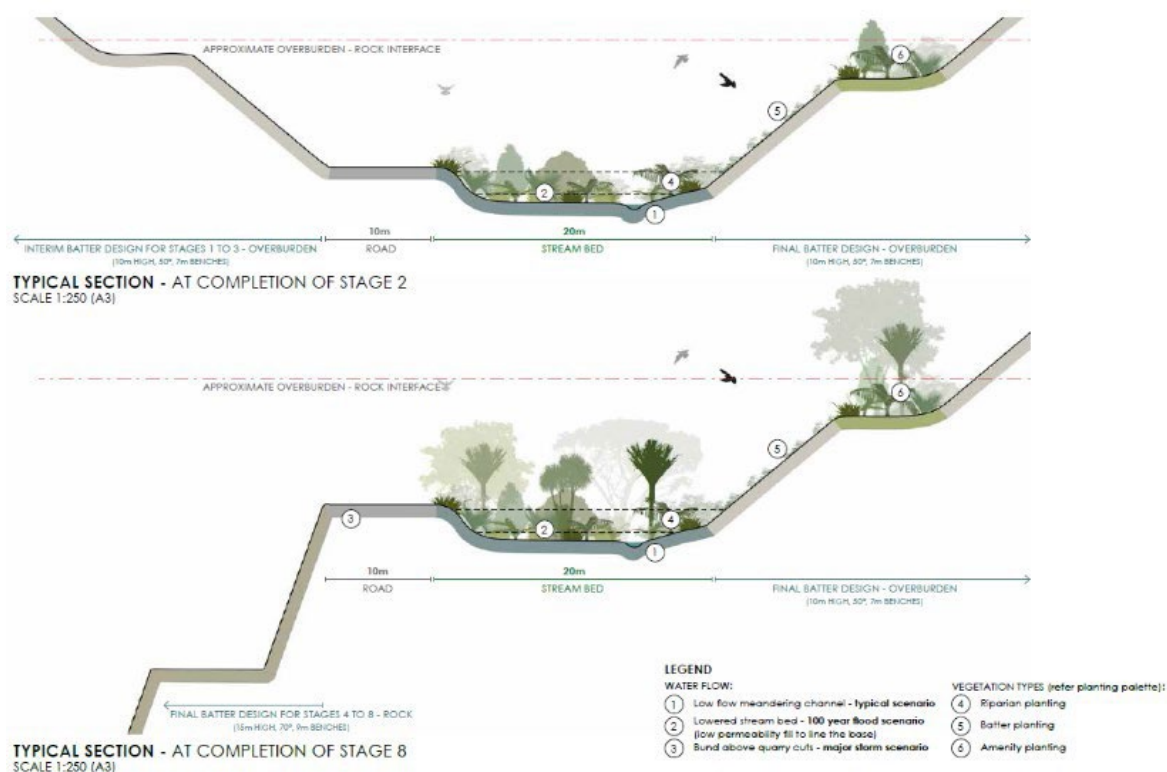


Figure 17: Mangapū Stream Realignment and Riparian Enhancement Concept at Stage 2 and Stage 8

B3.4.2 Construction of the Western Haul Road

230. It is proposed to construct a new 877m haul road from the pit to the processing plant during Stage 2, reducing diesel consumption due to its length and elevation.
231. The construction of the haul road will involve undertaking gecko salvage from February to April and will include fish salvage from Tributary 3 to the Mangapū Stream as shortfin eel, banded kokopu and koura have been found in this waterway. Vegetation clearance can commence once gecko salvage has been undertaken and outside kereru nesting season (September to April). Approximately 3.2ha of vegetation (including low kanuka shrubland, tall kanuka forest, and mature podocarp-broadleaved forest) will be removed during the first season of works to enable machinery to access the tributary and works area.
232. Culverts will need to be constructed across one permanent stream and one intermittent stream, with pipe sizes up to 1,650mm ID to cope with 100-year event. The pipes will have lengths up to 75m. The works will be undertaken during the period February to May (when stream flows are lowest). The installation of culverts is subject to the Freshwater Fisheries Regulations 1983, Part 6, Clause 42 in relation to fish passage. Part E of this Substantive Application addresses the relevant requirements under the FTA.
233. The haul road will require extensive earthworks including the creation of batter cuts, cut-to-waste, and cut-to-fill operations. The fill batter slopes will be approximately 1V:1.25h (378.7 degrees) and cut batter angles will be approximately 0.8v:1h (50 degrees). The haul road will have a minimum camber from the crown of 2% and a minimum vertical grade of 1:66, with table drains installed on the cut side. The total volume of earthworks will be approximately 87,723m³ of cut and 14,881m³ of fill.

This will necessitate the installation of erosion and sediment controls including a new sediment pond at RL110, with additional flocculant treatment recommended.

234. Subsoil drains will be placed within the road and road runoff will be directed to a chemically treated collection point and sediment pond at RL110, with additional flocculant treatment being undertaken. The fill batter slopes (approx. 0.065ha) will be replanted and hydroseeding of the cut slopes will be undertaken, with progressive replanting where feasible.
235. The haul road will then be removed during Stage 7 and a new haul road constructed which will result in the removal of another tributary (including the removal of the two culverts constructed during Stage 2). The construction methodology will be similar to that set out above, but detailed design and assessment will be undertaken during the later stages of the Project. It is noted that the removal of the tributary is not assessed as part of this current application as the works are anticipated to occur beyond 35 years period for which regional consents can be sought.

B3.4.3 Relocation of Counties Energy Transmission Lines

236. The following sections relate to the relocation of power lines and are for information only. Winstone is not seeking consents for this work as it will be consented (as required), and undertaken, by Counties Energy.

B3.4.3.1 Firth Power Lines

237. The construction of the western haul road and the development of the later stages of the Project will require the relocation of a fixed high voltage (HV) powerline owned and operated by Counties Energy. The powerline is fed from the main Middleton Road line and supplies the Hunua Quarry offices, the weighbridge, process water pond pumps and the Firth block plant. To minimise both operational risk and risk to personnel, the line will be relocated in two stages: once to accommodate the haul road and again to accommodate the pit development. Counties Energy has confirmed relocation plans will need to be supported by detailed design documentation. Winstone will agree the information to be provided prior to the commencement of Stage 2.



Figure 18: Current Firth powerline location and span distance

238. That said, from experience Winstone presumes that the works will be undertaken using one of the following options:
- (a) Relocate the existing power poles and install 12m poles setback 20m from the edge of the road and increase the line span to 86m.
 - (b) Run the line underground and resurface with a minimum offset of 25m from the edge of road. An easement would be placed over the southern edge of the haul road to protect the line and allow for mains power access for in-pit pumping and fixed/mobile processing plant.
239. The relocation of the powerline will require a lead-in time of up to 8 months.
- B3.4.3.2 Relocation of the Middleton Road 22kVA Lines
240. Prior to the completion of Stage 7 (Year 20), the 22kVA lines along Middleton Road will need to be relocated.

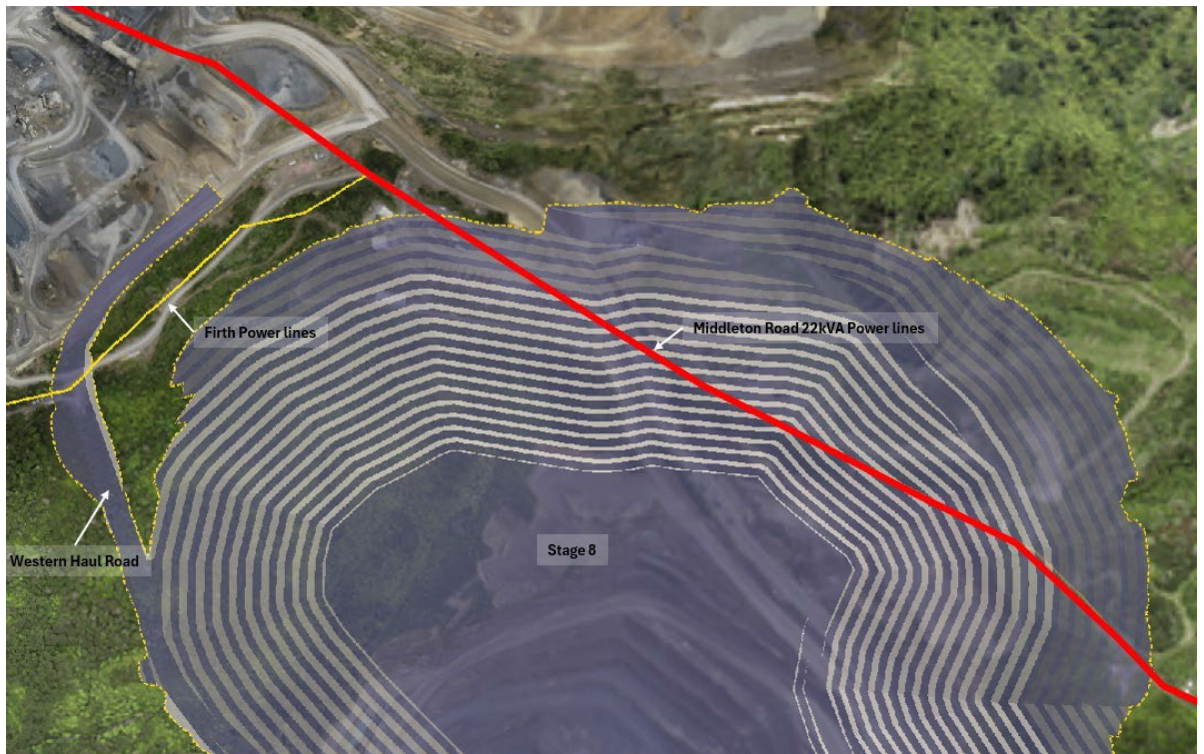


Figure 19: Current powerline location and Stage 8 Design

241. The 10 poles supporting the lines will be moved between 50 to 300m north of their current position and be protected by a new easement. Given the complexity of the work, and consultation required with Counties Energy, 6 to 12 months will be required to complete the works.

B3.5 Extraction and Processing Activities (Business as usual)

242. While the methods used in future quarry operations on the Site are likely to be generally similar to those used at present, it is expected that specific machinery and methods of extraction will vary in the future as technology develops and machinery and quarrying techniques are revised. The proposed draft management plans provide mechanisms to accommodate these changes while ensuring that conditions are met.

B3.5.1 Operation Limits

243. The quarry will operate within the following production limits:
- An extraction rate of 2,000 tonnes per hour.
 - A crushing rate of 1,000 tonnes per hour.
 - A screening rate of 1,000 tonnes per hour.

B3.5.2 Noise: Construction Works

244. All enabling works will be undertaken in accordance with the existing and proposed limits set out in Chapter E25 of the AUP. The relevant AUP standards are reproduced below.

Table 8: Table E25.6.27.1 Construction noise levels for activities sensitive to noise in all zones except the Business – City Centre Zone and the Business – Metropolitan Centre Zone

Time of week	Time Period	Maximum noise level (dBA)	
		L _{eq}	L _{max}
Weekdays	6:30am – 7:30am	60	75
	7:30am – 6:00pm	75	90
	6:00pm - 8:00pm	70	85
	8:00pm - 6:30am	45	75
Saturdays	6:30am – 7:30am	45	75
	7:30am – 6:00pm	75	90
	6:00pm - 8:00pm	45	75
	8:00pm - 6:30am	45	75
Sundays and public holidays	6:30am – 7:30am	45	75
	7:30am – 6:00pm	55	85
	6:00pm - 8:00pm	45	75
	8:00pm - 6:30am	45	75

B3.5.3 Noise: Mineral Extraction

245. The proposal will meet the following operational noise standards, when measured and assessed in accordance with NZS 6801:2008 Acoustics – Measurement of environmental sound and NZS 6802:2008 Acoustics – Environmental noise.
246. The noise limits will apply at the notional boundary of any site outside the Special Purpose – Quarry Zone except at 367, 369, 397, 411, 480-486, and 490 Hunua Road, 105, 106, 108, 115, 118, 119, and 195 Judge Richardson Drive, and 161, 163, 165, 167, 180, 193, and 255 Middleton Road⁷.

⁷ Written approvals are addressed in Section B1.6.

Table 9: Operational Noise Limits

Times	Noise levels
7am-6pm, Monday to Friday	55dB L _{Aeq}
7am-4pm, Saturday	55dB L _{Aeq}
All other times and on public holidays	45dB L _{Aeq} 75dB L _{AFmax}

B3.5.4 Vibration and Blasting

247. Vibration and blasting will be undertaken on an average of two occasions per day over a calendar fortnight between the hours of 9am to 5pm (Monday to Saturday) unless required for safety reasons. Blasting will be proceeded by a warning siren.
248. The noise created from the use of explosives will not exceed a peak overall sound pressure of 128dB L_{Zpeak} when measured at the notional boundary of a dwelling outside the Special Purpose Quarry Zone. Vibration generated by blasting activities will comply with the limits set out in the German Standard DIN 4150-3 2016: *Vibration in buildings – Part 3 Effects on structures* when measured and assessed in accordance with the Standard.

B3.5.5 Earthworks / Overburden

249. A large volume of material needs to be removed before the stream alignment works commence or any extraction can occur. Most soil / overburden will be removed using excavators and transported to the OBDA area using ridged axle trucks. This is estimated to be between 3649 k bank cubic metres (BCM) and 4149 kBCM for the project. It is intended that the overburden removed from the future expanded Symonds Hill Pit will be placed progressively back into the already consented Hunua Pit OBDA. That has capacity to receive up to 8.4 m/t of overburden. From time-to-time overburden may be required for infrastructure and building projects and will be exported off site.
250. All earthworks will be subject to an archaeological authority under the Heritage NZ Pouhere Taonga Act 2014, which is being sought as part of this application (refer **Part D**).

Table 10: Volumes of overburden and earthworks by stage

Stage	Total volume of OBDA / Earthworks (kBCM)
1	~1,732
2	~171
3	~332
4	~530
5	~0
6	~17

Stage	Total volume of OBDA / Earthworks (kBCM)
7	~5,169
8	~15,447
Total	~23,398

B3.5.5.1 Winter Works

251. It is proposed to undertake earthworks and the removal of overburden during the winter months (May to October). This is already occurring on the site subject to approval from Auckland Council and stringent erosion and sediment controls, with no adverse impacts on the environment. Winter works will be carefully monitored especially during periods of wet weather. The ability to undertake such works during the winter months reflects the changing nature of weather patterns and that many extreme weather events historically occur outside May to October.

B3.5.5.2 Removal of Overburden

252. Overburden will be stripped using 100 excavators and transported by rigid dump trucks to the OBDA. Materials overlying the rock typically have little commercial value but must be removed to facilitate extraction of the aggregate rock resource. The methods and equipment employed are similar to those used for soil/subsoil excavation.
253. The progressive development of the quarry, once the tributary is realigned, is expected to release up to 80 years of rock resource from the Symonds Hill Pit.
254. The on-site effects of overburden removal include effects on water and soil resources and air quality, all of which are addressed in the context of the consents and permits required from the Auckland Council. The management of these effects is more specifically described below.

B3.5.5.3 Placement of Overburden

255. The overburden from Stages 1- 7 (approximately Years 1 - 39 onwards) will be placed within the previously quarried Hunua Pit. The timing will depend upon market demand for aggregate and the extent of overburden to be stripped.
256. Currently, the OBDA is consented to take 2 million m³ of cleanfill, and 6 million m³ of managed fill to a level of RL170.
257. Post Stage 7 (approximately Year 39), additional capacity for 18.45 million BCM of overburden will be required, therefore it is proposed to commence backfilling the Symonds Hill Pit. This will still enable on-going quarry operations from Year 39 to Year 57 (Stages 7 and 8), whilst commencing rehabilitation activities.
258. The Symonds Hill in-pit OBDA design will be based on the design criteria used for the Hunua OBDA. Refer below for Symonds Hill OBPA design.
259. It is proposed to seek associated land use consents for this work as part of this application, recognising that these may need to be renewed. Regional consents will be sought prior to works commencing as this will be at least 35 years in the future.

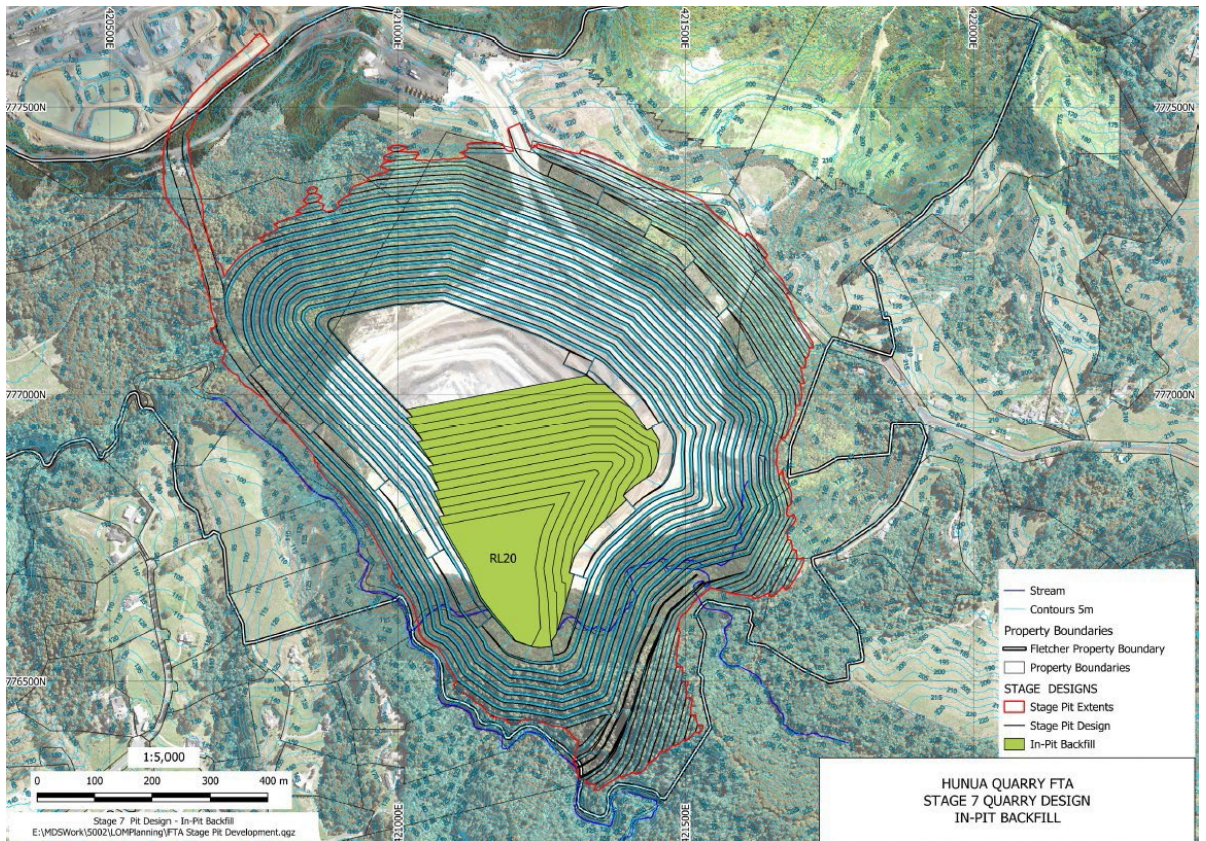


Figure 20: Stage 7 OBPA Infill of Symonds Hill Pit

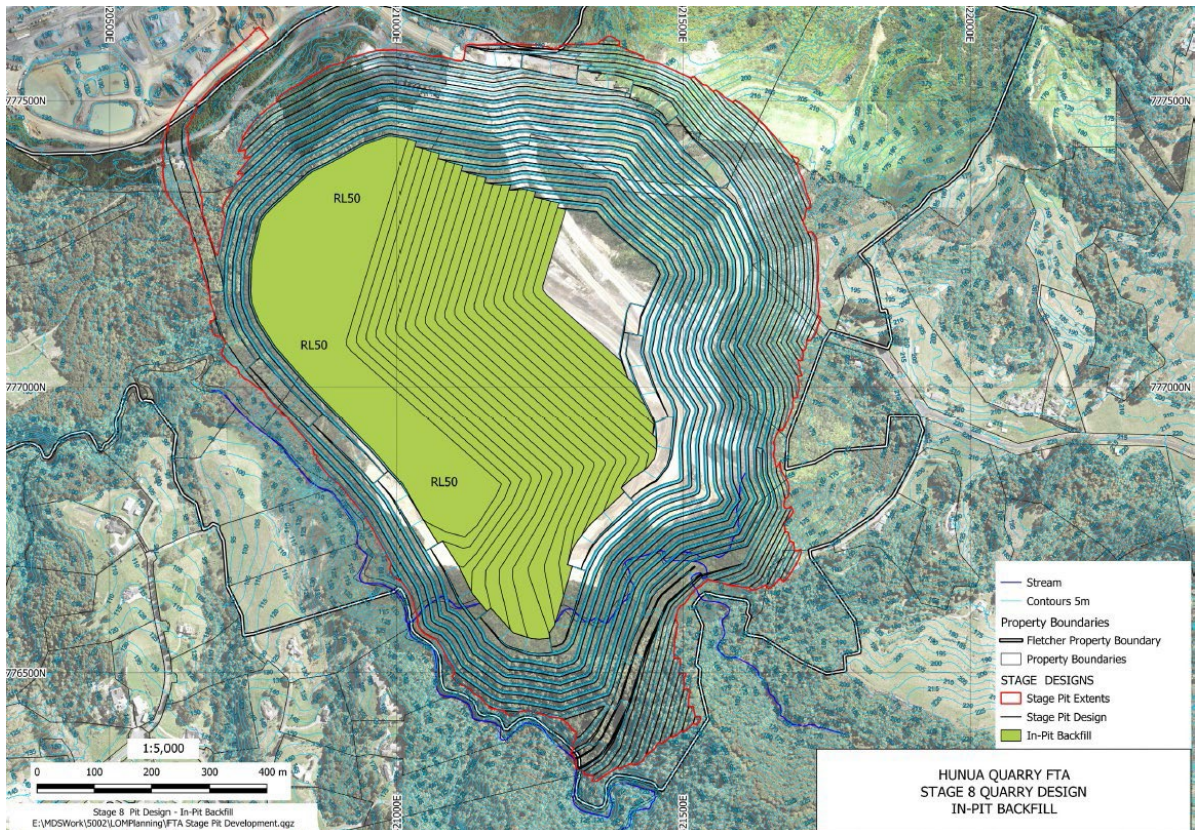


Figure 21: Stage 8 OBPA Infill of Symonds Hill Pit

B3.5.5.4 General Erosion and Sediment Control

260. A simple, standard approach will be taken to erosion and sediment controls for works outside of streams, including the use of dirty water diversion bunds, silt fences, decanting earth bunds (DEBs) and sediment retention ponds (SRPs). These are based on proven, existing controls that are currently implemented on the Site. Diversion bunds will direct 'dirty water' to the appropriate sediment retention device, and the sediment laden water will be chemically treated, as required, before being discharged to land. This will be managed through a Chemical Treatment Management Plan (**Appendix B12.8.11**).
261. To ensure maximum effectiveness, the SRPs, DEBs, silt fences and super silt fences will remain in place until all surfaces within the contributing catchments are stabilised by grass (strike > 80%), aggregate or are deemed to be non-erodible material (e.g. rock). This aligns with the requirements of GD05.

B3.5.5.5 Overburden and Earthworks (in close proximity to, and within streams)

262. Any sediment or material excavated from the bed of a stream will be stockpiled outside the 100-year flood plain area and managed with appropriate erosion and sediment control measures (as set out above). All areas of exposed earth, including the stream bed, will be stabilised with geotextile, rock or coconut matting at any time works are required to stop due to rainfall.
263. No machinery will enter watercourses, except for authorised works in accordance with an approved resource consent.

B3.5.5.6 Works within Streams

264. There are several methodologies that can be utilised when undertaking works in streams, depending on whether structures are installed within the existing stream (online) or adjacent to the existing stream (offline). Online methodologies include over-pumping or construction of a stream diversion channel (dam and divert methodology) to allow the water to by-pass the worksite. The dam and divert methodology involves damming a stream and pumping the flows around the worksite back to the stream, which considerably minimises disturbance relative to constructing a new diversion channel. Alternatively, a short-term diversion channel will be constructed, ensuring it allows for a 5% AEP rain event, whilst also considering the implications for secondary flow paths and upstream flood effects of having a larger event, up to 1% AEP. The methodology used to construct culverts within the Site and the bridge associated with the permanent tributary realignment will depend on the flow within the streams but will most likely be damming and pumping as it is less harmful to the stream environment and relatively simple to carry out. Additional detail on these methodologies can be found in the ESC Technical Report prepared by MPD Environmental Limited (**Appendix B12.4.7**). The appropriate methodology will be selected based on site conditions and in accordance with the ESCP.
265. During rainfall events, or when heavy rain is expected which has the potential to overwhelm the pumps, the work site will be fully stabilised to allow the stream to flow through the worksite. Detail on the appropriate stabilisation method and materials will be contained in the ESCP required under conditions of consent.

B3.5.6 Extraction

266. To extract rock in Symonds Hill Pit, drilling and blasting practices are used: typical of operations of similar scale in New Zealand. All blasts are designed, managed and executed by trained and qualified personnel considering a variety of factors. Typical current practice at Symonds Hill uses drilled 20m deep blasting holes utilising electronic detonation systems for control.
267. Once blasted, the rock will be scooped by front-end loaders and transported to the processing plant by 70t excavator rigid dump trucks via the existing dual-way haul road, and eventually by the western haul road.
268. The current pit design adopts 10–15m bench heights, with inter-bench slopes of 45–70°, with the minimum bench width of greater 9m and overall slope angles ranging from 34–43° based on geotechnical assessments. Development design will use similar criteria pending further ground investigations. Quarry deepening will occur through staged bench development, with progressive rehabilitation undertaken (where practicable) and where areas are no longer required for extraction or associated quarry operations.
269. It is proposed to extract and process an average of 2.8 million tonnes per annum (up to a peak of 5.4 million tonnes) depending on market demand and 225 million tonnes over the life of the quarry.

B3.5.7 Processing

270. Rock is processed into aggregate products by crushing, screening, washing, blending and conveying machinery. The products are moved by trucks, loaders or conveyor to storage bins or stockpiles.
271. The location of the processing plant is generally shown in **Figure 4**. While operationally it is desirable that the current plant process all the rock from both the Symonds Hill Pit, from time to time mobile

aggregate processing plant may be used to supplement, or substitute for, the fixed plant operation as it is now. The need to use mobile crushing equipment is either output related, for product/market reasons, or required because of major maintenance on the fixed plant. From an environmental effects perspective, all plant and site operations will continue to be subject to the same set of environmental controls.

272. The current plant is a modern aggregate processing plant capable of producing a full range of aggregate products. It is capable of washing semi-processed and finished aggregate products using a water control and treatment system which is also used to suppress dust. Usually this is a closed-circuit system with only makeup water added to compensate for water lost through evaporation or taken up by the aggregate products themselves. On occasion, after high intensity rainfall, process water may mix with stormwater in the water treatment system.
273. The plant also includes a blending system which will allow for aggregates that would otherwise be considered low grade material to be modified by using either clean rock by-products or small amounts of additives such as cement, lime, fly-ash and steel mill and concrete manufacturing by-products to improve or upgrade the material properties. This system ensures that the resource at Hunua will be further optimised and waste minimised. For example, marginal materials enhanced in this way can be used as engineered roading products.
274. In summary, the plant has been specifically designed to maximise the use of the Hunua rock resource while at the same time minimising the potential for adverse environmental effects. Winstone considers that the current crushing/screening rate limits in ARC consent 25026 of 1,000 tonnes/hour remains appropriate.

B3.5.8 Fines Disposal

275. Process fines are very fine particles (silt, clay, ultra-fine sand) generated during aggregate washing and processing. They originate from rock breakdown during crushing and screening and are carried in water streams to sediment retention ponds (SRPs). As these fines remain suspended in water, they must be managed to prevent discharge into waterways.
276. There are several methods that can be used to manage process fines. Currently, fines are dug and carted from the SRP to a containment cell within the OBPA using an excavator and 100t trucks. This is undertaken about once a month, and the process takes two to three days. As the fines disposal cell is incorporated into the OBDA design, this process will continue for the foreseeable future.
277. However, further in the future the following more efficient methods may be adopted:
 - Pumped fines disposal. The fines are pumped as slurry directly from the SRP to a containment area or treatment facility, reducing truck movements and improving efficiency.
 - Filter press dewatering. The process mechanically separates water from the fines, producing a dry, stackable 'filter cake.' This will reduce storage volume and water management requirements. It may also be feasible to sell the dewatered fines/filter cakes as low-grade fill or construction material.
278. All the methods will result in the management of fines to minimise impacts on water quality and freshwater values.

B3.6 Quarry Operation

279. The following section sets out the operational parameters that apply across the site and are not specific to certain activities and/or locations.

B3.6.1 Layout of the Site

280. The proposed enabling works and mineral extraction activities will be located on the site in accordance with the Plans in **Appendix B12.4**, Plans of the Proposal.

B3.6.2 Site Access

281. All vehicles access the site from Hunua Road, which is identified on the 'Strategic freight network map', which is administered by Auckland Transport as having a 'current network level of Level 1B'.⁸ The access gate is located on the south side of the road requiring a right turn into the site. However, to accommodate the increased truck volumes, it is proposed to construct a full right turn bay on Hunua Road.

B3.6.3 Hours of Operation

282. Hunua Quarry is authorised to operate on a 24-hour basis, subject to meeting relevant performance criteria (Certificate of Compliance ref 9354, dated 6 August 2008) such as limits relating to operational noise. Operational activities associated with product dispatch will occur at Hunua Quarry during night-time hours, being prior to 7am and after 9pm.
283. Opening of the quarry for general sales will be restricted to the hours set out below (as per the Quarry Management Plan). Large contract jobs and cartage by Winstone's own fleet may take place at all times, subject to compliance with noise standards. The Project will generally retain these hours, however there may be occasional early morning activity during periods of high demand, when purchasing trucks will access the Site from 5:00 am.

Table 11: Hours of operation as specified in the Quarry Management Plan

Hours of operation
Monday to Friday 6:00am – 5:30pm
Saturday 6:00am – 4:00pm
All other times as specified above

Level 1B is described by Auckland Transport (refer <https://at.govt.nz/about-us/transport-plans-strategies/auckland-freight-plan>) as: "Roads of the highest strategic value to freight movement being Arterials where efficient freight movements must be actively supported to maintain Levels of Service, where competing modes and land uses require active management."

B3.6.4 Traffic Generation

284. According to data provided by Winstone's Quarry in 2023, during the AM and PM peak hours, the quarry generated the following truck movements:
- AM peak hour – 76 truck movements; and
 - PM peak hour – 64 truck movements.
285. It is estimated that the average daily truck movements will increase by approximately 111% from the 2023 actual survey when the quarry is operating at peak capacity. This increase results in the following truck movement volumes during the AM and PM peak hours:
- AM peak hour – 161 truck movements (increase of 85 from existing) corresponding to approximately 80 entry and 80 exit truck movements; and
 - PM peak hour – 135 truck movements (increase of 71 from existing) corresponding to approximately 68 entry and 68 exit truck movements.

B3.6.5 Number of People Working on the Site

286. The Site is operated by both Winstone employees and contractors as set out in the Table 12 below. The expansion will result in a 20-percent increase in the number of staff and contractors.

Table 12: On-site employees and contractors

	Average	Peak	Anticipated increase (+/- 20%)
Staff	55	55	66
Contractors	15	30	35
Testing facility	2-3	5	No change

B3.6.6 Lighting

287. Internal lighting will be the same as currently installed within the site: mainly within the car parks and processing area. Lighting may also be required within the pit if a mobile processing plant is used after sunset and before sunrise.

B3.6.7 Signage

288. There will be no changes to the signage currently displayed on the site and no additional signage is proposed.

B3.6.8 Active Quarry Area

289. The active quarry area includes the following areas:

- Fixed processing plant, other mobile processing plant, other processing, stockpiling, unsealed customer loadout.
- Haul roads.
- Excavation and overburden disposal areas (excluding rehabilitated areas).

290. There is no limit on the active quarry area including the open are/area being extracted within the site, these sorts of limits are unsuitable for quarrying which require areas to remain open to access the aggregate resource for extraction. The scale of the active area is generally limited by the ability to control dust, and the need to have a stormwater sediment pond for every 5ha of earthworks/extraction.

B3.6.9 Maintenance of Machinery

291. All fixed and mobile plant will be serviced on-site in existing workshops.

292. No machinery will be maintained or refuelled in the pit or areas where earthworks are being undertaken.

B3.7 Water Management

293. Water management is the term used to describe all activities carried out on site to control and utilise surface water runoff, process water and groundwater resources in a manner which avoids adverse effects on the environment. It includes a range of activities such as the construction and maintenance of structures such as drains, ponds, diversion channels and sumps through to the installation of equipment and pumps e.g. for dust suppression, and the implementation of monitoring systems.

B3.7.1 Water Quantity

294. The predicted groundwater inflows for the ultimate pit development are:

- Maximum long-term regional groundwater inflow to the sump and from supply bore HUN14/8: 4,520 m³/d (includes 2,610m³/d for the quarry water use)
- Maximum short-term increase in inflow (storage release): 1,000 m³/d
- Maximum shallow groundwater inflow to the pit: 300 m³/d
- Total inflow/take: 5,820 m³/d

295. This total comprises water pumped from the pit floor (dewatering) and water taken for quarry operations (processing, dust suppression).

296. It is proposed to take up to 2,610m³ per day, comprising 1400m³ from the water supply bore HUN14/8 (near Coal Mine Road) and the remaining volume (as required) from the Symonds Pit Sump. Any remaining water (1,910m³/d or more) will be treated and used to augment flows in the Mangapū and Waipokopu Streams.

297. It is also noted that Winstone will surrender the existing groundwater water take consents it holds, if consent to take groundwater is granted under the FTAA.

B3.7.2 Water Quality

298. It is proposed to manage runoff from the haul roads and earthwork areas by discharging to sediment ponds. The maximum area of discharge to each sediment pond will be 5ha in accordance with GD05. All dewatering from the pit will also be discharged to settling ponds before discharge to the Mangapū Stream. On occasion, chemical flocculation may need to be undertaken in accordance with the Chemical Treatment Plan as set out in the conditions of consent.

B3.8 Discharges to Air

299. The extraction and processing of aggregate and the movement of vehicles within the quarry site will generate dust. This aspect of the proposal is described in detail in the Air Quality Assessment (**Appendix B12.4.1**). In summary, the most significant source of dust will be from the movement of vehicles along unpaved roads, while undertaking earthworks and the stripping and placement of overburden.
300. Dust within the Site will be managed in accordance with the Air Quality Management Plan in **Appendix B12.11.1**. This management plan is based on Winstone's experience of managing dust emissions on the Site to consented levels and incorporates updates to the existing management plan. Management measures include:
- continued instrumental dust and meteorological monitoring with recommended trigger alerts to enable any abnormal dust discharges to be controlled before notable off-site effects or impacts arise;
 - limiting the height and location of stockpiles;
 - ensuring drop heights of material are kept to a practicable minimum;
 - using earth bunds along the northern edge of the area, if required;
 - ensuring all vehicles comply with the on-site speed limits;
 - housing the main processing plant to contain the potential effects of dust;
 - covering all potentially dust generating conveyors;
 - spray bars at potentially dust generating material transfer points; and mist sprays beneath all crushers;
 - venting all air displaced from silos associated with the blending plant via filter system(s) prior to discharge to air. The filter systems will comply with the relevant design, operating and monitoring criteria/requirements of that version of TP152 that is current three months prior to installation of that system, or better;
 - using water and/or chemical suppressants on stockpiles and haul roads;
 - cleaning any sealed roads on a regular basis to ensure that dust is kept to a practicable minimum; and
 - a wheel washing facility at the exit of the premises to be used by all vehicles that have dirt on the tyres which is, or is likely to be, transferred off the tyres on to the roadways to ensure no tracking onto public roads.

B3.9 Monitoring

301. Given the nature of the works proposed within the quarry, it is intended to undertake a comprehensive suite of ongoing monitoring. This reflects that currently being undertaken by Winstone, this is further detailed below:

B3.9.1 Noise and Vibration Monitoring

302. Noise and vibration will be monitored at the notional boundary of all adjoining dwellings beyond the Special Purpose Quarry Zone except those where approvals have been provided.

B3.9.2 Air Quality

303. The following visual dust monitoring programme, in Table 13 below, will be undertaken:

Table 13: Visual Dust Monitoring Programme

Monitoring Activity	Frequency
Check weather forecasts for strong winds and rainfall to plan appropriate work schedule and dust management response.	Daily.
Inspect land adjacent to the site, site exits and adjoining roads for the presence of dust deposition.	At least daily and more frequently if the wind is blowing from a potential dust operation towards the boundary or sensitive receptor and the TSP conditions are triggered – refer to Draft conditions of consent.
Observe weather conditions including wind and rain via observations and data outputs from weather stations.	Daily and as conditions change.
Inspect all exposed surfaces for dampness and to ensure that the exposed un-stabilised area is minimised.	Daily and as conditions change.
Ensure instrumental monitors are operating correctly.	Daily.
Observe weather conditions including wind and rain via observations and data outputs from weather stations.	Daily and as conditions change.
Inspect any stockpiles to ensure that they are not subject to wind erosion. Minimise as far as practical the height of stockpiles containing unprocessed or unwashed material.	Daily and as conditions change.
Inspect all exposed surfaces for dampness and to ensure that the exposed un-stabilised area is minimised.	Daily and as conditions change.

Monitoring Activity	Frequency
Inspect dust generating activities to ensure dust emissions are effectively controlled.	Daily and as new activities are commenced.
Inspect watering systems (sprays and water carts) to ensure equipment is maintained and functioning to effectively dampen exposed areas.	Weekly

304. Winstone currently operate three continuous TSP monitors:
- Main Gate: MetOne EBAM Plus (EBAM Plus) operated with a TSP inlet in an air-conditioned hut.
 - Symonds Hill: Thermo Fisher Scientific 5014i (5014i) operated with a TSP inlet in an air-conditioned hut; and,
 - Ponga Road: MetOne EBAM operated with a TSP inlet in an air-conditioned hut.

305. Each of these monitors are connected to telemetry systems which send out alerts to site staff when concentrations exceed the trigger levels set out in Table 14 below.

Table 14: Proposed TSP Alert Levels

Averaging Period	Concentration (µg/m³)		
	Main Gate	Symonds Hill	Ponga Road
1-hour – Alert Level	220	220	220
1-hour – Trigger Level	250	250	250
24-hour (rolling)	100	80	80

306. If the TSP alert levels are triggered, an investigation as to the probable cause(s) will be undertaken. If that investigation establishes the probable cause of the elevated levels of TSP is an activity undertaken on the Site, action will be taken to reduce those discharges to the satisfaction of the Manager.

307. Ambient respirable crystalline silica (RCS) monitoring will also be undertaken to ensure that the Site is not discharging concentrations of RCS that may pose a risk to human health. This monitoring will consist of baseline (pre-development) monitoring and during project monitoring, each of which are detailed below.

B3.9.2.1 Baseline monitoring

308. At least three months of baseline monitoring will be undertaken using a recognised methodology to measure RCS, noting that this will measure concentrations in the respirable range (PM₄). The monitoring will be undertaken in the indicative locations presented in **Figure 22** below.



Figure 22: Locations of baseline RCS monitoring

309. The purpose of this monitoring is to establish the existing RCS concentrations from which it can be assessed if the Project is having an effect on the concentrations.

B3.9.2.2 Post commencement RCS monitoring

310. Once the Project has commenced, monitoring using the same methodology as the baseline monitoring, will be undertaken for 12 months in the same locations as those depicted in Figure 22.

311. The results of this monitoring will then be compared to the baseline concentrations to assess the effect (if any) that the Project is having on RCS concentrations around the Site, and against an annual average limit of $3 \mu\text{g}/\text{m}^3$.

312. If the annual average limit is met at a monitoring location, then ambient RCS monitoring in that location will cease.

313. If the annual average limit is exceeded at a monitoring location, then monthly monitoring will continue at that location until such time that the annual average limit is met.

B3.9.3 Groundwater

314. PDP has determined that the existing augmentation programme, groundwater monitoring network, and stream gauging sites on the Waipokopu and Mangapū Streams remain appropriate for the Project as described in B2.8.3. However, the following modifications are recommended:

- Minor modifications to the number of stream flow gauging sites, and

- A new set of groundwater trigger levels to account for increased drawdown magnitudes and
- Confirmation monitoring to verify predicted effects before augmentation is triggered, and
- A new Augmentation objective to maintain the streams existing MALF.

B3.9.3.1 Stream Flow Gauging Sites

315. Two additional low flow gauging stations will be established along the Waipokopu Stream (at the Drury Fault) and the diverted tributary (Stage 2) to monitor any loss of baseflow because of the proposed dewatering at Symonds Hill Pit. This station is referred to as Hunua Road Bridge (RL 25m) and Diversion-1. The locations of these additional gauging stations are shown in Figure 25 in the Groundwater Assessment. The management response to a low flow being recorded is addressed below in the section describing the proposed augmentation programme.

B3.9.3.2 Monitoring Bores / Piezometers

316. To ensure any drawdown is appropriately mitigated a comprehensive set of bore monitoring is proposed, building on the existing monitoring already being undertaken. Schedule A which is a schedule of 21 bores where groundwater level monitoring is required has been updated with bore details for those bores which have been constructed since Consent WAT60152106-A was granted. The locations of monitoring bores are shown in Figure 25 in the Groundwater Assessment.

B3.9.3.3 Proposed Drawdown Trigger Levels

317. The existing consent (WAT60152106-A) includes trigger levels for private bores and monitoring piezometers to confirm that actual drawdowns remain within modelled predictions. These have been refined to establish updated trigger levels for the proposed Symonds Hill Pit development. The changes are primarily attributable to the proposed additional deepening of the pit floor. The requirement to address impacts on affected private bores has been retained.

B3.9.3.4 Proposed Augmentation Programme

318. Augmentation will be implemented if stream flow monitoring confirms low flow reductions exceed 5% of the MALF. This is consistent with the framework established under the existing take consent. A condition of consent requires that a correlation be prepared for the purpose of quantifying the specific discharge for the MALF of all the gauging stations (including the diversion stream (Diversion-1 after Stage 2). The flow correlation must relate to the natural stream flow data for the period since data commenced and ending 30 April each year, with concurrent flows at the Auckland Council Mangawheau Stream flow site at Aldridge Road, Hunua (site number 08529) and any other relevant site as required in writing by the Southern Council, Resource Consents and Compliance.
319. In the event that a more than 5% drop occurs in the recognised MALF of the gauging stations on Mangapū Stream, Waipokapū Stream and the diverted stream, flows must be augmented upstream of the Waipokapū Stream (Downstream Site), Mangapū Stream (RL 55 Site) and the diverted Stream (Diversion-1 Site) at a constant rate by at least the maximum difference between the MALF and the average specific discharge flow for each station in a way to compensate for any loss of flow.

B3.10 Ecological Management, Monitoring and Enhancement

B3.10.1 Consent 8730 Symonds Pit

320. Consent 8730 was obtained as part of the original development of Symonds Hill Pit. The purpose of this consent was: To undertake vegetation removal and associated revegetation activities (including the/replacement planting of 39.9ha of indigenous forest and habitat and establishing conservation covenants on certain properties s77 of the Reserves Act).
321. When Consent 8730 was granted, planting across Hunua Quarry was relatively sparse, so the 39.9ha identified for covenanting reflected what were then considered to be the best available remnants that could be supplemented with additional planting.
322. The 39.9 hectares was made up of pockets of remnants and new areas to be planted but was not contiguous instead was located in numerous scattered blocks/parcels of land on the wider quarry site, outside of the perimeter of the footprint of the original Symonds Hill pit as shown on **Figure 23** below:



consent and the ecological values across the Site have materially improved, but has not yet registered conservation covenants for these areas as required by the conditions of consent. Some of the areas originally proposed to be set aside for planting and covenants now lie within the proposed Project Footprint and operational areas and no longer necessarily represent the areas with the highest ecological values.

324. Winstone seeks to change the consent conditions of consent 8730 to alter the areas that must be planted and conservation covenanted under that consent, to remove areas that fall in and around the expanded pit footprint and replace these with more suitable areas of vegetation. Approximately 42 ha of indigenous vegetation in two key areas: the Hay Paddock (10.95ha) and Friedman Block (being two areas either side of Coal Mine Road) totaling 32.42ha are proposed. This results in a total vegetated area to be covenanted of 43.37ha, slightly more than the 39.8ha required by Consent 8730. Changes are sought to the wording of the conditions to account for this change in area, to which the obligation to covenant applies, once the change has been approved Winstone will undertake any remaining necessary planting and place covenants on those areas (no change in the obligation to covenant is sought, just a change in the area where that occurs). The proposed areas are considered to represent the best long-term protection option as they are well separated from the pit, overburden placement, and any foreseeable operational activities. In other words, they are much less likely to be affected by any future expansion than areas in proximity to the Symonds Hill Pit.

B3.10.2 Wildlife Surveys, Salvage and Management

325. Prior to the clearance of vegetation or stream works, including stream realignment, suitability qualified ecologists will undertake wildlife surveys, and will then salvage and relocate species and/or implement avoidance measures. This work will be undertaken in accordance with Wildlife Act permits⁹, which are being sought as part of this application for lizards, and any associated management plans that relate to salvage of aquatic fauna and works within waterways Relocation of lizards will be to areas within the Hunua Regional Park, with the agreement of Auckland Parks team to these areas being available and suitable for relocation.
326. Prior to any disturbance within a stream bed, native fish will be salvaged and relocated where necessary. The fish capture and relocation component of any stream removal are timed to occur prior to and during the dewatering of the watercourses. Upstream inflows and downstream outflows will be dammed at each watercourse. The salvage will be undertaken in accordance with the protocols in an Aquatic Fauna Salvage and Relocation Plan.
327. Prior to vegetation clearance, survey and translocation of lizards will be undertaken. Any surveys, translocations or salvage of lizards will only be carried out between the months of September – April (inclusive), when weekly overnight average temperatures are at least 12 degrees. The methods for salvage, capture and relocation will be described in the Lizard Management Plan (LMP).
328. No rare or threatened birds have been recorded, however, where practicable, vegetation clearance will be undertaken outside of bird breeding season. Protocols for vegetation clearance scheduled during the breeding season for native bush birds (August to March inclusive) will be implemented to minimise mortality or injury to native birds.

⁹ Section s 42(4)(h) of the Fast-track Approvals Act sets out that a substantive application for wildlife approval that would otherwise be sought under the Wildlife Act 1953 must include the information required by clause 2(1) of Schedule 7 of the FTAA. Winstone seek authorisation from the FTAA for activities related to the Hunua Quarry Development that would typically require an application under section 53 of the Wildlife Act 1953.

329. The lack of recorded bat activity within the Project Site and the vicinity of the Hunua Quarry indicates an absence of favoured maternity and nocturnal roost trees and a lack of preferred foraging areas. However, as individual long tailed bats may occasionally utilise the Project Site for foraging and/or solitary roosts, and the future range of bat populations is unknown, pre-clearance bat monitoring will be undertaken. Prior to vegetation clearance commencing, potential bat roosting areas will be visually assessed by the Bat Specialist assigned to the Project. If trees in these areas are identified as potential bat roost features (i.e., cavities, deadwood, loose bark and epiphytes), then further acoustic surveys will be required to confirm the presence/absence of bats immediately prior to felling.

B3.10.3 Vegetation Clearance

330. Vegetation clearance will be required to enable activities within the Site and will include clearing areas of native vegetation, and an area of restoration planting. This has been mapped and evaluated for its quality to understand the appropriate levels of offsetting and compensation that will be required.
331. Vegetation removal activities broadly involve the use of crews of workers and machinery creating tracks into vegetated areas followed by tree felling and/or the mulching and chipping of vegetation in situ. The mulching is typically carried out by small hydraulic excavators fitted with a grinding attachment. In situ mulching is suitable for vegetation typically up to 200mm in diameter but can include large fern. Large woody debris (> 200mm in diameter) is cut down to size. Vegetation removal generally takes place well in advance of scheduled overburden removal, allowing time for decomposition of the vegetative material. Alternatively, mulch is collected for composting elsewhere. Composted mulch is incorporated into topsoil for which is recovered and stockpiled for rehabilitation activities.
332. **Table 15** summarises the staged removal of vegetation in terms of its type.

Table 15: Removal of vegetation at each stage of the development

Stage of Project	Vegetation type							TOTAL (ha)
	Veg 1	Veg 2	Veg 3	Veg 4	Veg 5	Veg 6	Veg 7	
	Tree-fermland with nīkau, emergent pūriri & broadleaf scrub	Kānuka forest with emergent broadleaves & podocarps	Tawa-taraire forest with mature kānuka	Native planting / weedy scrub mix	Kānuka / manuka scrub	Kauri, podocarp, broadleaf forest	Exotic scrub	
Stage 1	1.46	0.79	3.73	0.66	0.58	0.00	0.00	7.22
Stage 2	0.54	0.95	0.00	0.25	0.07	0.02	0.00	1.83
Stage 3	0.50	0.06	3.06	0.00	0.15	0.00	0.00	3.77
Stage 4	0.23	0.67	3.35	0.00	0.00	0.00	0.00	4.25
Stage 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stage 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Stage of Project	Vegetation type							TOTAL (ha)
	Veg 1	Veg 2	Veg 3	Veg 4	Veg 5	Veg 6	Veg 7	
	Tree-fermland with nīkau, emergent pūriri & broadleaf scrub	Kānuka forest with emergent broadleaves & podocarps	Tawa-taraire forest with mature kānuka	Native planting / weedy scrub mix	Kānuka / manuka scrub	Kauri, podocarp, broadleaf forest	Exotic scrub	
Stage 7	4.60	5.19	4.73	1.85	0.38	0.24	0.15	17.14
Stage 8	2.81	0.72	0.06	5.95	0.86	0.00	4.00	14.40
Total (ha)	10.14	8.38	14.93	8.71	2.04	0.26	4.15	48.61

B3.10.4 Loss of Stream Length

333. The Project will result in the realignment of intermittent and permanent streams, as well as the permanent removal and loss of intermittent and permanent streams. The location, stage and extent of stream modification is set out in Table 16 below. In summary a total of 527 m of intermittent and permanent stream will be removed and 1,200 m of stream length will be realigned within Mangapū Tributary.

Table 16: Realignment and removal of watercourses

Watercourse	Stage Quarry development	Purpose of stream modification / removal	Estimated length of stream modification / removal
Mangapū Tributary	Stage 2	Bridge	No loss
Mangapū Tributary	Stage 2	Stream realignment	1200 m
Mangapū Stream trib 3	Stage 7 (offset in Tranche 1 Stages 1-4)	Haul road culverts and quarry expansion	475 m
Mangapū Stream trib 4	Stage 7 (offset in Tranche 1 Stages 1-4)	Haul road culverts and quarry expansion	40 m

B3.10.5 Loss of Wetlands

334. The Project will result in the direct removal of 0.22ha of wetland features, including 0.12ha of ecologically significant forest seepage, and 0.1ha of degraded exotic grass-dominated swamp. In addition, works will result in the likely drainage of a further 0.23ha of wetland extent (0.09ha of forest seepage, 0.14ha of exotic grass-dominated swamp) within 100m of the Site as a result of partial removal.

B3.10.6 Ecological Restoration / Offsetting / Compensation

B3.10.6.1 Indigenous Vegetation Offset and Compensation

335. A comprehensive biodiversity offset / compensation package is proposed to address the loss of 44.46ha of indigenous forest and scrub and associated terrestrial fauna habitat over the life of the Project.
336. The terrestrial ecology offset and compensation proposal includes:
- a total of 85.62ha of revegetation within the Hunua Quarry landholding and surrounding landscape, within the Hunua Regional Park, and at Meremere Quarry;
 - comprehensive pest management across some 69.5 ha of forest and scrub within the Hunua Quarry Site and adjacent Focus Areas staged during the consent implementation (excluding Hunua Pit re-forestation), in accordance with the Pest Management Plan provided with the application (Boffa Miskell 2026b), expanding the area within the Hunua Quarry landholding already subject to pest control (the pest management plan for the whole area will be updated and enhanced as part of the revised pest management strategy).
 - comprehensive pest management across 29.4ha of forest and scrub within the Meremere Quarry Site owned by FCIL and adjacent revegetation areas for the duration of the consent, in accordance with the Pest Management Plan provided with the application (Boffa Miskell 2026b).
 - Extensive weed control to make way for revegetation plantings, particularly within Hunua Road and Hunua Regional Park.
337. The offset areas required to fully offset the project have been calculated using the Biodiversity Offset Accounting Model and represent an offset area of 96.7ha required. Areas identified for revegetation amount to a total of 85.62ha, leaving a shortfall of 11.08ha to achieve full offset. An additional area of 16.33 ha of existing indigenous bush has been identified for protection and the strategic and comprehensive pest and weed control package described above provides compensation to address the shortfall in planting area and ensure biodiversity benefits meet or exceed losses. The approach to implementing the offset and compensation package will be managed through the Ecological Management Plan.
- #### B3.10.6.2 Wetland Offsets
338. The proposed Quarry expansion will result in the loss of a total area of 0.45ha of natural inland wetland, of which 0.21ha comprises several small patches of ecologically significant forest seepage, and 0.24ha is degraded exotic grass-dominated swamp.
339. The calculated offset for this loss is a 2.4ha area of enhancement and planting to achieve full offset of the losses. The wetland enhancement and planting areas to a total area of 2.51 ha, are located in Focus Areas A (Hunua Quarry and environs) and Focus Area B (Meremere Quarry), and within land owned in the Hunua Ranges by Auckland Parks. Auckland Council have provided their written in principal agreement to use of this land for offsetting. With full offset provided, no additional compensation is required but it is noted that these areas will also include fencing, removal of stock, and pest plant and pest animal management to ensure success.

B3.10.6.3 Freshwater Ecology Offset and Compensation

340. The offset for the overall offset of loss and change to waterways is an integrated suite of measures at several locations and include re-connecting waterways, provision for improved fish passage and planting the riparian margins of waterways. The proposed biodiversity offset for the loss of stream length and habitat comprises a mix of:
- Planting riparian vegetation along stream margins, in Focus areas 1, 2 and 3.
 - Re-establishing connectivity and linkages to and between reaches of existing watercourses, including removal of farm ponds, in the Hunua Road landholdings.
 - Removal of willow, blackberry and other woody weeds from reaches of stream and rehabilitation with native riparian vegetation in the Hunua Regional Park area identified as Focus area 3.
341. The offset package will lead to restoration of stream length, riparian planting resulting in enhanced stream habitat, reduction in bank erosion, improved fish passage and connectivity, and the cessation of stock grazing and their access to waterways. As components of the freshwater offset is planned for the same location as components of the vegetation offset, the overall result is, in part, a complete re-vegetation and restoration of a headwater tributary catchment feeding the Mangapū Stream catchment. Increased native planting in headwater catchments will improve the quality of water from the start as it as it descends its catchment.

B3.11 Other Activities and Approvals Required

342. Schedule 5, Cl 5(1)(e) requires a description of any other activities that are part of the Project for which the application relates. This has been interpreted to mean non- Fast Track approvals needed to support the Hunua Quarry Development. A number of approvals and permissions are required that cannot be obtained under the Fast Track Approvals Act 2024. These include:
- All necessary approvals under the Overseas Investment Act 2005, which Winstone has obtained.
 - Road stopping of the paper road prior to development of the Pit in Stage 7 under Part 10 of the Local Government Act 1974.
 - Providing detailed design documentation for the relocation of the powerline structures to Counties Energy at least 12 months prior to Stage 2 commencing.
 - Pursuant to Regulation 43, Freshwater Fisheries Regulations 1983, the approval for the use of a weir (at the offset site 484 Hunua Road).
343. The FCIL owned Properties at 165, 193 and 255 Middleton Road, that all form part of the Site, are the subject of vegetation covenants relating to the historic subdivision of the land in the 1980's and 1990's and are in favour of Papakura and Franklin District Councils. Winstone has been in discussion with Auckland Council (the successor to Franklin and Papakura District Councils) about the removal of these covenants. Auckland Council has confirmed its position in a letter dated 2 March noting that the effects of the vegetation removal will be considered by the Panel and that it will

provide its necessary agreement for the removal of the vegetation protection covenants required by LINZ under the Land Transfer Act 2017 once the Fast Track approvals are obtained¹⁰.

344. Discussions with Auckland Council have occurred pre-lodgement. Winstone has agreed with Auckland Council that road stopping of the portion of paper road will be required in advance of development of the pit in that location. This will require a future application to be made by Winstone to stop the road under the Local Government Act 1974.
345. Counties Energy has confirmed that any relocation works must be supported by detailed design documentation. Winstone has agreed that this information will be provided at least 12 months prior to the commencement of Stage 2 of the quarry development, or when the pole relocation works are required. Winstone will continue to keep Counties Energy informed as the Project progresses.
346. Winstone Aggregate are currently preparing a separate approval for the use of a weir at 484 Hunua Road as part of the offset and compensation works. The weir will be utilised in the upgrading of farm ponds to wetlands.
347. Clause 5 (1)(f) also requires a description of any other resource consents required for the project to which consent relates. There is addressed below.
348. In order to implement mitigation agreed with the owners and occupiers of 163 Middleton Road it is proposed to adjust the boundaries between these two contiguous lots, being Lot 6 DP 152736 (163 Middleton Road) and Lot 2 DP 115598 (255 Middleton Road). Plans of the proposed boundary adjustment are contained in **Appendix B12.3b**. The boundary adjustment will increase 255 Middleton Road from 17.97ha to 21.53ha an increase of 19.8-percent and decrease 163 Middleton Road from 53.733ha to 50.17ha, a decrease of 6.6-percent. The boundary adjustment is required to assist with the mitigation of effects on this landowner. Primary activities sought by this Application are not proposed to be undertaken on the subject land and existing covenants and instruments that apply to the affected part of 163 Middleton Road, remain unchanged.

B4. Resource Consents

B4.1 Existing Resource Consents

349. Winstone hold several consents to operate Hunua Quarry (comprising both the Hunua Pit and Symonds Hill Pit) including to:
- undertake vegetation clearance, and
 - remove overburden, and
 - extract rock, and
 - use managed fill to rehabilitate the Hunua Pit, and
 - divert, take and discharge groundwater, and
 - undertake sediment control, and

¹⁰ Letter dated 2nd March 2026 James Hassel, Head of Resource Consents, Auckland Council, to Fletcher Concrete and Infrastructure Limited. A copy of this letter needs to go into the consultation report.

- construct sediment ponds and treat stormwater/discharges from managed fill, and
- discharge to air, and
- operate the processing facilities, staff facilities, haul roads and car parks, and
- remove approximately 400m of Category 1 watercourse being a tributary of Mangapū Stream.

350. The Symonds Hill Pit currently operates under several consents within the area identified as 'the consented footprint'. The proposed development of the Symonds Hill Pit requires a suite of changes to some of the existing consents and new consents to be sought to enable the proposed development to be undertaken, both within the consented footprint and outside the consented footprint.

351. Table 17 below identifies all relevant consents under which the Symonds Hill Pit currently operates and those that will be amended under RMA s127 and where new consents are being sought (both within and outside the consented footprint) and the reasons for the changes.

Table 17: Overview of the relevant consents detailing those to be amended under s127 and those that will be renewed

Activities that currently have consent.	Consented activities that will need to be altered.	New activities that need consent within the consented Symonds Hill Pit footprint.	Activities that need consent (outside the consented pit footprint).
R/LUC/2017/483 / LUC60356962 Using managed fill to rehabilitate the Hunua Pit. Approximately 2million m ³ of overburden/cleanfill (existing Symonds Hill consent and approved QMP) and about 3million m ³ of managed fill to RL170m. Expires: 7th September 2030.	Retain – no changes.	No consent currently held. Consent required for in-pit placement of overburden within Symonds Hill Pit, when required.	
R/REG/2017/819 / BUN60356960 / DIS60326961 Discharges from managed fill including disposal of water (perched groundwater and collected stormwater). Monitoring is undertaken in accordance with Fill MP. Expires: 7 th January 2035.	Retain for Hunua Pit.	Covered by 'usual' discharge consents as backfilling only.	
DIS60362882 To construct a new sediment detention pond and discharge point to	No change required.	New consent required for new detention ponds and discharge points to Mangapū Stream, due to redesign of the quarry pit.	

Activities that currently have consent.	Consented activities that will need to be altered.	New activities that need consent within the consented Symonds Hill Pit footprint.	Activities that need consent (outside the consented pit footprint).
nearby watercourse within the Special Purpose – Quarry Zone. Expires: 27th January 2056			
CWAT60152106 – A To authorise the diversion and taking of groundwater from the Hunua West Greywacke Aquifer Zone, Hunua Wairoa Greywacke Aquifer and the Waitemata Aquifer for the Hunua Pit and Symonds Hill Pit dewatering and stream flow augmentation. Works: A quarry pit sump located approximately 500 metres south of Middleton Road, (known as the Symonds Hill Pit sump), a discharge pond within the Hunua Pit and Symonds Stream augmentation bore located adjacent to Symonds Stream, at Hunua Quarry, Papakura. Expires: 29th October 2044.	New global consent to be sought to: remove takes related to Hunua Pit. Amend Symonds Hill Pit figures will need to reflect proposed take and augmentation. WAT60152106 – A will be relinquished once a new consent has been issued. <u>Reasons</u> A change of conditions is not considered appropriate given the extent of the changes that are required. Retaining the existing consent but having a new consent just for the proposed extension areas would be difficult and complex and unnecessary given that the water will be taken from the same aquifers that underlie both the consented pit and the extension areas. Also, the changes will be extensive and include additional areas, therefore a new application is being sought that covers both the consented and new extraction areas.		
WAT60274802-A To authorise the diversion of groundwater to a quarry pit dewatering pond (500m south of Middleton Rd), the water level of which is at least 5 metres above the regional water table as indicated by monitoring bores and authorise the taking of stormwater and groundwater for quarry dewatering and quarry uses. Expires: 29th October 2044.	This consent will be rolled into the global groundwater diversion and take consent as discussed above. WAT60274802-A will be relinquished once a new consent has been issued.		
34131 / DIS60362882 - Symonds Pit To authorise the discharge of groundwater and surface water from a quarry pit (a quarry pit dewatering pond approximately 500m south of	A new consent is required to provide for a new discharge point once the stream diversion works have been completed. The existing consent (DIS60362882) will then be surrendered. Prior to diversion works being completed, will discharge under the existing consent.		

Activities that currently have consent.	Consented activities that will need to be altered.	New activities that need consent within the consented Symonds Hill Pit footprint.	Activities that need consent (outside the consented pit footprint).
Middleton Road, Drury) to the Mangapū Stream. Expires: 29th October 2044.			
34130 - Symonds Pit To control the discharge of contaminants to air, primarily from dust, from activities associated with the operation of Hunua Quarry (including dust from vegetation removal, overburden removal, excavating rock, blasting and drilling, crushing, screening, storage and transport of rock and the operation of a blending plant). Expires: 29th October 2044.	A new global consent will be sought to: include discharges to air from additional areas of vegetation removal and extraction, and address minor changes to monitoring locations and triggers, and importantly, to enable grant of consent for 35 years.		
34132 - Symonds Pit To authorise works in a water course, involving the removal approximately 400m of Category 1 watercourse being a tributary of Mangapū Stream in accordance with the RMA. Expires: 29th October 2044.	No changes required as work enabled by this consent has been completed – within consented.	N/A	New consents are required for all new stream works to divert a tributary of Mangapū Stream to the southeast of the Pit (Stage 1) and to culvert the tributaries to northwest of the consented pit (Stage 2). Regional consent is also required for: Diversion. Culverts and a temporary bridge. Reclamation of the existing stream channel.
32151 - Symonds Pit Sediment control for quarrying and associated earthworks at Hunua Quarry.	The legal description of the land covered by the consent includes all consented and additional extraction areas. However, a new global consent is being sought to obtain a 35-year consent duration.		

Activities that currently have consent.	Consented activities that will need to be altered.	New activities that need consent within the consented Symonds Hill Pit footprint.	Activities that need consent (outside the consented pit footprint).
Expires: 29th October 2044.			
8730 - Symonds Pit To undertake vegetation removal and associated revegetation activities (including the/replacement planting of 39.9ha of indigenous forest and habitat and establishing conservation covenants on certain properties s77 of the Reserves Act): Pt Allotment 38 Parish of Hunua. Lot 1 DP 105061 Lot 1 DP 120541 Lot 2 DP 115598 Lot 5 DP 152736 Lot 1 DP 109558 Lapses: 30 October 2039.	A s127 application will be made to change/cancel conflicting and outdated conditions i.e. Condition 6 and those related to covenants – as vegetation removal and replanting has not been completed.	Stage 1 and part of Stage 2 lie within Lot 1 DP 60065, so vegetation removal is consented under 8730 but this consent will be subject to s127 application as discussed in the column to the left.	A new consent will be sought for all vegetation removal outside the consented pit. It is not deemed appropriate to amend Consent 8730 to include additional (extensive) areas.
N/A	N/A	Extraction in part of Stage 1 and part of Stage 2 is within consented pit.	A new consent is being sought for all land uses outside the consented pit, including: construction of haul roads, and earthworks, and extraction. <u>Reason for new consent</u> No consent is held for these activities as they are outside the consented pit.

B4.2 Resource Consents Required

352. For the purposes of this application, the following definition from the Auckland Unitary Plan has been applied to mineral extraction/quarrying:

- *Activities carried out at a quarry and includes:*

- *blasting;*
- *excavating minerals;*
- *processing minerals by crushing, screening, washing, or blending;*
- *storing, distributing and selling mineral products;*
- *accessory earthworks;*
- *removing and depositing overburden;*
- *treating stormwater and waste water;*
- *landscaping and rehabilitation of quarries;*
- *cleanfill and managed fills;*
- *recycling or reusing aggregate from demolition waste such as concrete, masonry, or asphalt;*
- *accessory activities and accessory buildings and structures such as laboratories; and*
- *workers accommodation.*

353. It excludes common marine and coastal area mineral extraction.

354. Enabling works (also referred to as construction activities) are defined as those works required to enable mineral extraction such as vegetation clearance, haul road construction, culvert construction and stream realignment and rehabilitation work.

355. It is also important to note that the definition of cleanfill excludes the use of overburden associated with mineral extraction activities:

Cleanfill

Facility where cleanfill material is accepted for deposit.

Excludes:

- *storage and use of cleanfill material within an earthworks site for the purpose of engineering contours for specific activities;*
- *placement of cleanfill material associated with road construction and road maintenance activities; and*
- *onsite storage and use of overburden or aggregate by-product that is cleanfill material associated with mineral extraction activities.*

B4.2.1 Resource Consents

356. Resource consent is required for the following activities:

B4.2.1.1 Resource Management (National Environmental Standards for Freshwater) Regulations

Regulation 45A Discretionary activities

357. 45A (1) Vegetation clearance within, or within a 10m setback from a natural inland wetland is a discretionary activity if it is for the purposes of quarrying

358. 45A (2) Earthworks or land disturbance within, or within a 10m setback from, a natural inland wetland is a discretionary activity if it is for the purpose of quarrying activities.

The proposal involves vegetation removal, earthworks and land disturbance within and within 10m of natural inland wetlands for the purposes of quarrying.

359. 45A (4) The taking, use, damming or diversion of water within, or within a 100m setback from, a natural inland wetland is a discretionary activity if:

- (a) the activity is for the purpose of quarrying activities; and
- (b) there is a hydrological connection between the taking, use, damming, or diversion and the wetland; and
- (c) the taking, use, damming, or diversion will change, or is likely to change, the water level range or hydrological function of the wetland.

The proposed dewatering of the Symonds Hill Pit will drain two natural inland wetlands.

Regulation 57 Discretionary activities

360. 57 (1) Reclamation of the bed of any river is a discretionary activity.

The proposal involves the reclamation of approximately 1200m of the Mangapū Tributary (with flows proposed to be diverted to a new channel).

Regulation 71 Discretionary activities

361. 71(1) placement, use, alteration, extension, or reconstruction of a culvert in, on, over, or under the bed of a river is a discretionary activity if it does not comply with any of the conditions in regulation 70(2).

The proposal involves the placement of two culverts in the bed of a river which does not comply with 70(2)(a) as fish passage is not provided.

The proposed culverts do not comply with Regulation 70(2)(d) as the widths of the culverts will less than the channel width

The proposal does not comply with Regulation 70(2)(f) due to the slope and velocity of the proposed culverts.

B4.2.1.2 Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations

362. **Regulation 9** Removing or replacing fuel storage system, sampling soil, or disturbing soil is a controlled activity

The proposal involves disturbing soil within the stockyard area, which exceeds the permitted activity volumes in Regulation 8(3)(c)

B4.2.1.3 Auckland Unitary Plan – Operative in Part

Chapter E3 Lakes, rivers, streams and wetlands

E3.4.1 Activity table

363. **E3.4.1 (A19)** - Diversion of a river or stream to a new course and associated disturbance and sediment discharge inside an overlay is a **non-complying** activity.

The proposal involves the diversion of 1200m of the Mangapū tributary within a Natural Stream Management Overlay, an Outstanding Natural Landscape Overlay and a Significant Ecological Areas Overlay.

364. **E3.4.1(A29)** - Bridges or pipe bridges complying with the standards in E3.6.1.16 and which are located within overlays are a **discretionary** activity.

The proposal involves the construction of a temporary 7m wide bridge within a Natural Stream Management Overlay, an Outstanding Natural Landscape Overlay and a Significant Ecological Areas Overlay.

365. **E3.4.1(A33)** - Culverts or fords more than 30m in length when measured parallel to the direction of water flow is a **discretionary** activity.

Two culverts are proposed for the construction of the Stage 2 haul road. Culvert 1 is proposed to be 50m in length. Culvert 2 is proposed to be 75m in length.

366. **E3.4.1(A49)** - New reclamation or drainage, including filling over a piped stream is a **non-complying** activity.

The proposal involves the reclamation of approximately 1200m of the Mangapū tributary.

Chapter E4 Other Discharges of Contaminants

E4.4.1 Activity table

367. **E4.4.1(A15)** discharge of water or contaminants onto or into land and/or into water not complying with the relevant standards or not otherwise provided for by a rule in the Plan is a **discretionary** activity.

The proposal does not comply with E.4.4.1 (2) as it involves the discharge of water into the Mangapū Stream which is subject to a Natural Stream Management Area overlay.

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

E7.4.1 Activity table

368. **E7.4.1(A20)** Dewatering or groundwater level control associated with a groundwater diversion authorised as a restricted discretionary activity, not meeting permitted activity standards or is not otherwise listed is a **restricted discretionary** activity.

The proposed dewatering is associated with a groundwater diversion which is identified as a restricted discretionary activity.

369. **E7.4.1 (A26)** take and use of groundwater not meeting the permitted activity or restricted discretionary activities standards or not otherwise listed is a **discretionary** activity.

The proposed groundwater takes are of 2,610m³/day and are not otherwise listed.

370. **E7.4.1 (A28)** diversion of groundwater caused by excavation (including trench) or tunnel that does not otherwise meet the permitted activity standards or not otherwise listed (restricted discretionary) is **restricted discretionary** activity.

The proposal does not comply with E7.6.1.10(2) as the proposed groundwater diversion will exceed 1ha natural groundwater level and will occur for more than 6m in depth below the natural ground level.

The proposal does not comply with E7.6.1.10(3) as there is potential for groundwater levels to reduce by more than 2m on the boundary of any adjoining site.

The proposal does not comply with E7.6.1.10(5) as the separation distance between existing buildings and the edge of the proposed pit expansion is less than the depth of the excavation.

Chapter E8 Stormwater – Discharge and Diversion

E8.4.1 Activity table

371. **E8.4.1(A10)** - All other diversion and discharge of stormwater runoff from impervious areas not otherwise provided for is a **discretionary** activity

All stormwater runoff is proposed to be diverted to sediment retention ponds and then discharged to the Mangapū Stream. This includes diversion and discharge of stormwater runoff across the existing and proposed haul roads.

Chapter E11 Land Disturbance – Regional

E11.4.1 Activity table

372. **E11.4.1(A8)** - Greater than 2,500m² where the land has a slope equal to or greater than 10 degrees is a **restricted discretionary** activity.

The proposal involves excavation greater than 2,500m² within the Rural – Mixed Rural Zone where the majority of the land has a slope greater than 10 degrees.

373. **E11.4.1 (A9)**: Greater than 2,500m² within the sediment control protection area is a **restricted discretionary** activity.

Mangapū Tributary 1 borders the boundary between the SPQZ and the Mixed Rural Zone. The proposal involves extraction within the sediment control protection area of that tributary as it relates to the Mixed Rural Zone. Additionally, upon completion of the stream diversion channel, the proposal will include extraction within the sediment control protection area of the new channel / stream.

E11.4.3 Activity table - Significant Ecological Areas Overlay

374. **E11.4.3 (A28)** Land disturbance greater than 5m² is a **restricted discretionary** activity

375. **E11.4.3 (A30)** Greater than 5m³ is a **restricted discretionary** activity.

The proposal involves earthworks associated with the construction of the stream diversion channel and extraction activities within the Significant Ecological Area Overlay. The proposed land disturbance activities will exceed 5m² and 5m³.

Chapter E12 Land disturbance – District

E12.4.1 – Activity table

376. **E12.4.1 (A6)** land disturbance greater than 2,500m² is a **restricted discretionary** activity in the Rural – Mixed Rural Zone

377. **E12.4.1 (A10)** land disturbance greater than 2,500m³ is a **restricted discretionary** activity in the Rural – Mixed Rural Zone

Approximately 17.2ha of the proposed Symonds Hill Pit extraction area (including the proposed stream diversion channel) is located within the Rural – Mixed Rural Zone. Accordingly, land disturbance (including mineral extraction and earthworks) activities will be greater than 2,500m² and greater than 2,500m³.

E12.4.2 – Activity table Overlays (Outstanding Natural Landscape)

378. **E12.4.2(A30)** land disturbance greater than 50m² is a **restricted discretionary** activity in an Outstanding Natural Landscape

379. **E12.4.2 (A33)** land disturbance greater than 250m³ is a **restricted discretionary** activity in an Outstanding Natural Landscape

Approximately 6ha of the proposed Symonds Hill Pit extraction area is located within the Outstanding Natural Landscape Overlay, all of which has an underlying zone of Rural – Rural Mixed Zone. Accordingly, land disturbance (including mineral extraction and earthworks) activities will be greater than 50m² and greater than 250m³.

380. **Rule C1.9(2)** non-compliance with Standard E12.6.2 General standards is a **restricted discretionary** activity.

The proposed land disturbance proposed within a riparian yard does not relate to operation, maintenance or repair works and will exceed 5m² and 5m³ of general earthworks (E12.6.2(1)).

Construction works for the haul roads, stage 2 culverts and the stage 1 temporary bridge which occur within flood hazard areas may exceed 28 days (E12.6.2(13)).

Chapter E14 Air Quality

E14.4.1 Activity table

381. **E14.4.1(A91)** Mineral extraction activities at a rate exceeding 200 tonnes/hour from any one quarrying process in a Low air quality area is a **controlled** activity.

The proposal will involve Mineral extraction activities at a rate exceeding 200 tonnes/hour within the Special Purpose Quarry Zone.

382. **E14.4.1(A91)** Mineral extraction activities at a rate exceeding 200 tonnes/hour from any one quarrying process in a Medium air quality area is a **discretionary** activity.

The proposal will involve Mineral extraction activities at a rate exceeding 200 tonnes/hour within the Rural – Mixed Rural Zone.

Chapter E15 Vegetation management and biodiversity

E15.4.1 Activity table

383. **E15.4.1 (A10)** Vegetation alteration or removal, including cumulative removal on a site over a 10 year period, of greater than 250m² of indigenous vegetation that (a) Is contiguous vegetation on a site or sites existing on 30 September 2013; and (b) Is outside the rural urban boundary is **restricted discretionary** activity.

A total of 44.46ha of primarily indigenous vegetation is proposed to be removed. While some areas may have existed post 2013, the majority of vegetation to be removed existed prior to 2013. The subject Site is located outside the Rural Urban Boundary.

384. **E15.4.1 (A12)** Vegetation alteration or removal of any vegetation within a Natural Stream Management Areas Overlay – within the Rural Mixed Use and Quarry Zones is **restricted discretionary** activity.
- The proposal involves vegetation removal along the Mangapū Tributary which is within the Natural Stream Management Areas Overlay.*
385. **E15.4.1 (A16)** Vegetation alteration or removal within 20m of rural streams within the SP Quarry zone is a **restricted discretionary** activity.
- The proposal involves vegetation removal within 20m of tributaries of the Mangapū stream that are within the Special Purpose Quarry Zone at stages 1, 2, 3 and 7.*
386. **E15.4.1 (A17)** Vegetation alteration or removal within 10m of rural streams in the Rural Mixed Zone is a **restricted discretionary** activity.
- The proposal involves vegetation removal within 10m of the Mangapū tributary, within the Rural Mixed Zone at stages 1, 4 and 7.*
387. **E15.4.1 (A18)** Vegetation alteration or removal within 20m of a natural wetland, in the bed of a river or stream (permanent or intermittent), or lake is a **restricted discretionary** activity.
- The proposal involves vegetation removal within 20m of a natural wetland as identified in the Ecological Assessment (Appendix 12.4.5).*
388. **E15.4.2 (A28)** Vegetation alteration or removal of greater than 50m² of any contiguous indigenous vegetation in an ONL is a **restricted discretionary** activity.
- The proposal involves removal of approximately 6ha of contiguous indigenous within an ONL.*
389. **E15.4.2 (A43)** Vegetation alteration or removal in an SEA outside the Quarry Zone is a **restricted discretionary** activity.
- The proposal involves vegetation removal within an SEA overlay and outside the Quarry Zone.*
390. **E15.4.2 (A44)** Any vegetation alteration or removal in an SEA within the Quarry Zone is a **restricted discretionary** activity.
- The proposal involves vegetation removal within an SEA overlay and inside the Quarry Zone.*

Chapter E25 Noise and Vibration

E25.4.1 Activity table

391. **E25.4.1 (A2)** Activities that do not comply with a permitted activity standard are a **restricted discretionary** activity.
- The proposal does not comply with E25.6.31(1) as noise created by explosives will exceed the permitted 120 dB (Lzpeak), with a maximum of 128 dB (Lzpeak) proposed.*

Chapter E27 Transport

392. **E27.4.1(A2)** Parking, loading, access and Electric Vehicle Supply Equipment which is an accessory activity but which does not comply with the standards for parking, loading, access and Electric Vehicle Supply Equipment is a **restricted discretionary** activity.
- The crossing width is proposed to be 17m at the road boundary, which exceeds the maximum 9m width permitted when accommodating large heavy vehicles pursuant to E27.6.4.2(2)*

393. **Rule C1.9(2)** non-compliance with **E27.6.1(1)** Trip Generation standards is a **restricted discretionary** activity.

The proposal will generate a maximum of 161 truck movements at AM peak hour, exceeding the 100v/hr (any hour) traffic generation threshold. The proposed mineral extraction activity is a restricted discretionary activity under H19.8.1(A60) and there is no requirement to assess transport or trip generation effects.

Chapter E36 Natural Hazards and Flooding

E36.4.1A Activity table

394. **E36.4.1A (A98)** All other structures and buildings (including retaining walls) in the 1 per cent annual exceedance probability (AEP) floodplain and flood prone areas is a **restricted discretionary** activity.

Stage 1 of the proposal involves the construction of a temporary bridge across the Mangapū tributary to provide access for the proposed diversion channel. The proposed bridge is located within the 1% AEP floodplain.

Stage 2 involves the construction of a culvert within the 1% AEP flood plain.

395. **E36.4.1A (A129)** All other buildings and structures, including retaining walls, in landslide hazard risk areas that do not comply with Standard E36.6.A1 is a **controlled** activity.

The landslide hazard risk assessment does not comply with E36.6.A1(b) as the assessment is equivalent to, rather than in accordance with, Appendix 24 Landslide hazard risk assessment methodology.

Chapter H28 Special Purpose – Quarry Zone

H28.4.1 Activity table

396. **Rule C1.9(2)** Mineral extraction activities not complying with the controlled activity standards is a **restricted discretionary** activity.

The proposal will infringe Standards H28.6.2.1 Noise and H28.6.2.2 Vibration and blasting.

397. H28.4.1 (A14) Land disturbance greater than 2500m² is a **controlled** activity.

The Proposal will result in land disturbance greater than 2,500m².

398. H28.4.1 (A15) Land disturbance greater than 2500m³ is a **controlled** activity.

The Proposal will result in land disturbance greater than 2,500m³.

399. H28.4.2(A17) Land disturbance (regional) greater than 10,000m³ where the land has a slope equal to or greater than 10 degrees is a **controlled** activity.

The Project will result in land disturbance (including earthworks and mineral extraction activities) greater than 10,000m³ on slopes greater than 10 degrees.

400. H28.4.2(A18) Land disturbance (regional) Greater than 2,500m³ within the Sediment Control Protection Area is a **controlled** activity.

The vegetation removal and the construction of the temporary bridge (Stage 1), construction of the western haul road (at Stages 2 and 7) and mineral extraction activities (and associated vegetation removal) at Stages 3 and 7 will result in land disturbance greater than 2,500m³ within the Sediment Control Protection Area of the Mangapū Stream and a number of Mangapū Tributaries that traverse the Site.

Chapter H19 Rural Zones

H19.8.1 Activity table – Rural Mixed Zone

401. **H19.8.1(A60)** Mineral extraction activities within the Rural – Rural Mixed Zone is a **discretionary** activity.

The proposal will result in mineral extraction activities occurring on 17.2ha of Rural – Rural Mixed Zoned land.

B4.3 Consents associated with a subsidiary activity on Lot 6 DP 152736 and Lot 2 DP 115598

B4.3.1 Chapter E39 Rural Subdivision (AUP(OP))

B4.3.1.1 E39.4.1 Activity Table – Subdivision for specified purposes

402. **E39.4.1(A10)** Boundary adjustments unable to comply with controlled activity rule and standards in E39.6.3.2 and E39.6.3 is a discretionary activity.

The boundary adjustment exceeds 10 per cent of the original site area and is unable to comply with standard E39.6.3.2(3) as 255 Middleton Road remains less than Mixed Rural Zone minimum site size of 40ha.

B4.4 Change or Cancellation of Resource Consent Conditions

403. Winstone holds a number of existing consents as set out in section B4.1. To facilitate the current proposal while continuing to provide recognition of commitments relating to previous consents, approval is sought under section 42(4)(b) FTAA to change these consent conditions. The information requirements for a change to consent conditions are specified in s43(3)(b) as being those set out at Schedule 5 clause 10, which says the same information is required as for resource consents in cl.5-9 have been addressed below and explained further in the relevant technical reports.
404. For completeness, it is noted that section 3 of FTAA provides that the information to be provided under s 13(4)(y)(ii) relating to a referral containing a change or cancellation of consent conditions must include information about whether the change or cancellation of consent conditions is material to the implementation or delivery of the project. An explanation as to why the changes are needed in order to implement the project is included below.
405. It is proposed to change the conditions of the following consent as set out below.

B4.4.1 Consent 8730 Symonds Pit

406. The purpose of this consent is: *To undertake vegetation removal and associated revegetation activities (including the/replacement planting of 39.9ha of indigenous forest and habitat and establishing conservation covenants on certain properties s77 of the Reserves Act).*

407. It is proposed to amend the following conditions of consent.

Condition 5

That no vegetation shall be removed from the area identified as Vegetation Area 22 within the application documents, until it has been confirmed in writing by the manager - resource consents (Papakura District Council) that Council is satisfied that conditions 11 and 12 below

Condition 6

That no vegetation shall be removed within ~~30 metres of the legal boundary of Lot 1 DP 60065,~~ or within 40 metres of this boundary where it coincides with a natural watercourse, as measured in plan view ("vegetation protection buffer areas"). For information purposes, the indicative boundary of Lot 1 DP 60065 and the general location of the vegetation protection buffer areas are shown on Plan AD5120-200 Revision B (09/10/09).

Conditions 7-13

The consent holder shall provide mitigation for the progressive loss of all vegetation that will be removed. The mitigation shall be through the provision of 39.9 hectares of indigenous forest and habitat comprising new and replacement planting or the enhancement of existing indigenous vegetated areas on land ~~described as shown on Plan XXXX:~~

- ~~Pt Allotment 38 Parish of Hunua Lot 1 DP 105061~~*
- ~~Lot 1 DP 120541~~*
- ~~Lot 2 DP 115598~~*
- ~~Lot 5 DP 152736~~*
- ~~Lot 1 DP 109558~~*

8. ~~All areas of revegetation shall be established prior to the commencement of vegetation removal activities in stage 5.~~

9. ~~That revegetation / enrichment planting of Area 1a (as shown on Figure 4.1 of the application documents) shall be undertaken to ensure that views of the wider landscape from Lot 4 DP 152736 are retained.~~

10. ~~That the consent holder shall undertake revegetation to provide replacement riparian margin habitat in the area identified on Plan WA-RP1 as soon as practicable following the grant of resource consent.~~

11. ~~That the consent holder shall ensure that prior to the commencement of stage 4, revegetation has been undertaken to ensure that replacement habitat of at least 8 hectares has been established to sustain indigenous bird species (including NZ pigeon) displaced through the removal of Vegetation Area 22.~~

12. ~~Prior to the commencement of Stage 4, the consent holder shall provide a report from a suitably qualified person which confirms that the requirements of condition 11 above have been satisfied. No work shall commence on Stage 4 until confirmation has been received in writing from the manager - resource consents (Papakura District Council) that condition 11 has been complied with to the satisfaction of the Council.~~

8. *That revegetation plantings shall be undertaken to achieve the following outcomes:*

- (i) To be representative of the ecology of the surrounding indigenous vegetation and habitat in the area.*
- (ii) To be self-supporting and sustainably viable in the long term without requirement for intensive management.*
- (iii) To create ecological links to other adjoining areas of indigenous vegetation.*
- (iv) To restore riparian vegetation to degraded stream margins within Pt Allotments 38 Parish of Hunua.*
- (v) To reduce potential threats to existing remnant vegetation and proposed revegetation areas from introduced weeds and animal pests.*

408.

The change to Condition 6 is essentially to remove any potential conflict with future consents, as it is proposed to extend the Symonds Hill Pit located within Lot 1 DP 60065, outside the boundaries of that lot, and therefore within the required 30 metre setback. The effects of that change including the clearance of vegetation have been addressed in the Ecological Assessment in **Appendix B12.4.5** and in Section B7.2 and will be subject to a separate consent. The change to Condition 7 and cancellation of conditions 5, 8-12 relate to the development of the Symonds Hill Pit. The proposal is to provide an equivalent area of vegetation to be covenanted located elsewhere within the Site that provides an equivalent or greater ecological value, as shown on plan at **Appendix B12.3ae** entitled "**Section 127 Variation - Covenant Replacement Areas**" (**Covenant Replacement Plan**). This will be achieved by consolidating covenanted areas on the Site away from future pit development in two larger covenanted areas in the Friedman Block and Hay Paddock Areas rather than in fragmented remnants across the Site. The areas chosen to provide this replacement, meet the qualities and outcomes sought by Condition 13 of the consent, being regenerating and some mature, indigenous vegetation. As such, the areas will achieve the same or similar outcomes as those originally sought through the consent. The test under s127 of the RMA is to assess the effects of the proposed change, and the area of indigenous vegetation that will replace what was to be replanted is of a larger scale and equal or greater ecological value. Consequently, it can be considered that there will be no adverse effects arising from this change. Conditions 15 – 19 relate to the registration of conservation covenants that will achieve long term protection of the areas of the Site that were identified for replanting and protection. These conditions state:

15. *That conservation covenants pursuant to Section 77 of the Reserves Act 1977 shall be put in place and registered over existing remnant areas of indigenous vegetation on the land that are*

not subject to vegetation removal activities, with the exception of land located within the quarry zone described as:

- Pt Allotment 79 Parish of Hunua; and
- Lot 1 DP 60065 (excluding all of that land subject to condition 6 above).

Advice Note: In the event that application for subdivision consent under the Lots for Conservation Purposes, is made in the future for the Friedman Block (Pt Allotment 38 Parish of Hunua), the covenanting of indigenous vegetation as part of this application for resource consent, shall not negate the ability to subdivide under Rule 7.1.5.2.1 of the Operative Papakura District Plan, provided that it is demonstrated at the time of subdivision that the performance standards and assessment criteria of this rule are complied with.

16. That following the completion of replanting activities of the identified revegetation conservation covenants pursuant to Section 77 of the Reserves Act 1977 shall be put in place and registered over these areas.

Advice Note: it is intended that the conservation covenants required by conditions 15 and 16 will be covered by one covenant document registered on the relevant certificates of title. As revegetation and remnant areas are covenanted it is considered that the relevant covenant areas will be added to a survey plan and the covenant documents amended to include any new covenant areas.

17. The consent holder shall be responsible for meeting all costs and expenses incurred by the Papakura District Council in the preparation, execution, completion, registration and monitoring of the covenants.
18. The conservation covenants required by conditions 15 and 16 shall include the following conditions:
- (a) To not
19. The penalty for breach of the conservation covenants required by conditions 15 and 16, as identified in any notice issued by Council shall be \$2,000.00 in respect of each and every breach or failure.

409. None of the areas required to be covenanted have had the covenants registered over them yet, and it is no longer proposed to undertake those covenants in the areas that are now proposed to be within the quarry development area. Instead, it is now proposed that the conditions requiring covenanting of those areas are replaced with the replanted areas referred to above and shown on Covenant Replacement Plan. It is proposed that these conditions be amended to state:

Condition 6

That no vegetation shall be removed within 40 metres of this boundary where it coincides with a natural watercourse, as measured in plan view ("vegetation protection buffer areas"). For information purposes, the indicative boundary of Lot 1 DP 60065 and the general location of the vegetation protection buffer areas are shown on Plan AD5120-200 Revision B (09/10/09).

Condition 7

*The Consent Holder shall provide mitigation for the progressive loss of all vegetation that will be removed. The mitigation shall be through the provision of 39.9 hectares of indigenous forest and habitat comprising new and replacement planting or the enhancement of existing indigenous vegetated areas on land shown on Plan at **Appendix B12.3ae** entitled "Section 127 Variation - Covenant Replacement Areas".*

410. Given that the areas now proposed to be covenanted will achieve the outcomes sought by the existing consent, it is considered that there will be no adverse effects arising from the change in conditions.

B4.5 Reclamation of a streambed

411. The definitions of reclamation within the AUP and National Planning Standard 2019 infer “filling” to create dry land. Although the proposed quarry development is diverting and excavating rather than filling the stream bed, the overall result of creating dry land is the same. Accordingly, the application conservatively seeks resource consent for reclamation.
412. The following addresses information requirements pursuant to Clause 2, Schedule 8 of the FTAA. In accordance with Clause 2(a), the location of Tributary 1, being the area sought to be reclaimed as part of this resource consent application, is shown in Figure 11 above (refer to Figure 13 in **Appendix B12.4.5**).
413. With regards to Clause 2(b), as FCIL own the land on either side of the streambed, the boundary lines are not required to be updated. Accordingly, no updated boundary lines are provided.
414. With regards to Clause 2(c), an esplanade reserve or strip is not required as the site is greater than 4ha.

B4.6 Permitted Activities

415. Pursuant to Clause 5(5)(a), Schedule 5 of the FTAA the application must include a summary of permitted activities included as part of the proposal and demonstrate compliance with those relevant permitted activity standards, conditions and permissions. **Appendix B12.10** of this AEE includes a compliance table which provides a detailed overview of all activities included in the proposal in relation to relevant activity standards in the National Environmental Standards for Freshwater Management (‘NES-F’), the National Environmental Standards for Assessment and Managing Contaminants in Soil to Protect Human Health (‘NES-CS’), the National Environmental Standards for Air Quality (‘NES-AQ’) and the Unitary Plan Operative in Part (‘Unitary Plan’).
416. The following provides a summary of permitted activities included as part of the proposal:

Regulation / Plan	Permitted Activity
Resource Management (National Environmental Standard for Air Quality) Regulations 2004	The Project complies with the Ambient air quality standards for contaminants identified in Schedule 1 of the NES-AQ.
B1.1.1 Auckland Unitary Plan	Operational noise resulting from the Project will comply with the limits stipulated in E25.6.3(1) and (2): Noise levels in rural and future urban zones and Noise levels at the Rural – Rural Mixed Zone interface.
	Construction activities will meet the requirements of Rule E25.6.30 Vibration.

Regulation / Plan	Permitted Activity
	Discharges of contaminants into air, or into water, or onto or into land from land not used for rural production activities will meet the requirements of Rule E30.6.1.4.
	Activities where natural hazard risk is acceptable in accordance with Table E36.3.1B.1 and E36.3.1B.2 in flood hazard areas
	Lighting within the Site will meet all the permitted activity standards in E24.4.1 (A1) and E24.6. However, a condition of consent is proposed (as requested by Auckland Council) to ensure compliance with the standards can be readily monitored.

B4.6.1 Other Permitted activities

417. The project requires offset works to be undertaken on land not included within the site at Meremere and in the Hunua Ranges. Those properties and the works required are set out in Section 9.5 of **Appendix B12.4.5** refer Figures 31 – 35 and Table 18 below for a description of the works proposed. A preliminary assessment of the works required, the ownership of land and the consent requirements, confirming that the works can be undertaken as a permitted activity is set out below.

Table 18: Proposed Enhancement Locations

Site/s	Ownership	Works proposed	Relevant plan
Focus Area 1 Hunua Quarry and surrounding landscape			
Hunua Quarry pit	FCIL	Revegetation planting Weed and pest control for consent term	<u>AUP(OP):</u> Special Purpose – Quarry Zone Conservation planting ¹¹ is permitted.
Judge Richardson Drive	FCIL	Revegetation planting Weed and pest control for consent term	<u>AUP(OP):</u> Mixed Rural Zone Countryside Living Zone Conservation planting is permitted
Hunua Road properties (484, 397 and 411 Hunua Road)	FCIL	Revegetation planting Weed and pest control for consent term Installation of a weir	<u>AUP(OP):</u> Mixed Rural Zone Conservation planting is permitted <u>NES-F and AUP(OP):</u> The proposal will comply with permitted activity standards.
Focus Area 2 Meremere Quarry			

¹¹ **Conservation planting** is defined in the AUP(OP) as follows: Planting principally for: • soil and water conservation; • waste water disposal or purification; • landscape preservation or enhancement; • preservation for particular historic or archaeological value; and • conservation for scientific or ecological value. Includes: • planting trees; and • tending trees. Excludes: • growing trees for timber production.

Site/s	Ownership	Works proposed	Relevant plan
Meremere Quarry site	FCIL	Revegetation planting Weed and pest control for consent term	<u>Waikato District Plan Operative in Part October 2025:</u> General Rural Zone A conservation activity ¹² is permitted. The proposal avoids Sites and areas of significance to Maaori ID 221.
Focus Area 3 Hunua Ranges			
Hunua Ranges / Auckland Parks land	Auckland Council (refer to Appendix 12.14 for Written Approval for the use of Hunua Regional Park for offset planting)	Riparian willow clearance and revegetation	<u>Waikato District Plan Operative in Part October 2025:</u> Open Space Zone A conservation activity permitted.

B5. Consultation

B5.1 Fast-track Consultation Requirements

418. An overview of consultation undertaken, for the purposes of s 29 of the FTAA, is provided with the Substantive Application Overview. This includes the material required by cl 6(1)(e)-(f) of Schedule 5 to the FTAA, which requires that an assessment of the environmental effects under the FTAA must include:
- (a) 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
 - (b) If iwi or hapū elect not to respond when consulted on the proposal, any reasons that they have specified for that decision.
419. The consultation overview in Section A5.1 of Part A to the Substantive Application also addresses the mandatory pre-lodgement consultation requirements in s 29 of the FTAA for listed projects.
420. On the 31 March 2026 the requirements for consultation were amended to include requirements for notification. Section 29 of the FTAA requires consultation or notification with the persons and groups identified in Section 11(1) of the FTAA, prior to lodging the Substantive Application.
421. Section 11(1) of the FTAA requires the applicant to consult with the following parties prior to lodging the Substantive Application.

¹² **Conservation activity** is defined in the Waikato District Plan Operative in Part October 2025 as follows:

Means activities associated with managing or restoring indigenous habitat, including wetlands, maintains or enhances indigenous biodiversity or raises public awareness of indigenous biodiversity values. It includes stock exclusion (inclusive of fencing), research and monitoring, the maintenance or upgrading of public walking or cycle tracks, interpretive and directional signs, accessory buildings including those for interpretation or education purposes and the provision of access for plant or animal pest management.

Before lodging a referral application, the applicant must consult—

- (a) consult—*
 - (i) any relevant applicant groups with applications for customary marine title under the Marine and Coastal Area (Takutai Moana) Act 2011; and*
 - (ii) 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; and*
- (b) notify in writing—*
 - (i) the relevant local authorities; and*
 - (ii) any relevant iwi authorities, hapū, and Treaty settlement entities, including—*
 - (A) iwi authorities and groups that represent hapū that are parties to relevant Mana Whakahono ā Rohe or joint management agreements; and*
 - (B) the tangata whenua of any area within the project area that is a taiāpure-local fishery, a mātaītai reserve, or an area that is subject to bylaws or regulations made under Part 9 of the Fisheries Act 1996; and*
 - (iii) the relevant administering agencies; and*
 - (iv) 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; and*
- (c) give the persons and groups referred to in paragraph (b) 20 working days to respond to the notice.*

422. Additionally, the FTAA requires specific consultation for approvals relating to Resource Management Act 1991 (Schedule 5, Clause 6(e)), approvals relating to Wildlife Act 1953 (Schedule 7, Clause 4) and approvals relating to Heritage New Zealand Pouhere Taonga Act 2014. These specific consultation requirements have been considered as part of the consultation for the Substantive Application.
423. As noted in Part A: Overview, consultation and engagement commenced on the proposal in October 2025, (and earlier for some iwi) prior to the Fast-Track Approvals Amendment Act 2025 (Amendment Act) becoming law. Winstone had commenced pre-lodgement consultations with a number of parties (as required by old sections 11 and 29), and, where those consultations had commenced, they continued and were completed as part of the pre-lodgement phase of the project. Written notification was also given to a number of parties pursuant to new sections 11 and 29 and the transitional provisions in Part 2 of Schedule 1 to the FTAA.

B5.2 Overview of Consultation

424. Consultation was broken into two separate processes:
- (a) Iwi Consultation; and
 - (b) General Consultation.
425. Iwi consultation is provided in the Cultural Values and Consultation Summary Report, prepared by Wikaira Consulting (**Appendix A6.7**). The Cultural Values and Consultation Summary Report

identifies the Iwi and Mana Whenua groups relevant to the project and required to be consulted with or notified under Section 11 of the FTAA.

426. Consultation has responded to the changes to iwi consultation in the FTAA and application of the transitional provisions in Part 2 of Schedule 1 of the Act. Straddling both the old and new provisions.
427. The Consultation Summary Report, prepared by Boffa Miskell outlines the general consultation undertaken as part of the preparation of the Substantive Application (**Appendix A6.4**) and the outcomes of that consultation, the consultation that has occurred, and how these outcomes have shaped the Project.

B5.3 Iwi Consultation

428. The Cultural Values and Consultation Summary Report (**Appendix A6.7**), prepared by Wikaira Consulting, outlines the Iwi consultation and the outcomes of consultation undertaken for the Project. During consultation Winstone have been committed to maintaining and strengthening iwi relationships through early, direct and ongoing engagement.
429. Consultation included parties identified in s11 and s29 of the FTAA that required pre-lodgement consultation and notification. These relevant iwi authorities are identified in Section B5.3.1 below.
430. Where pre-lodgement consultation had already been commenced by Winstone with relevant iwi groups under the old section 29 of the FTAA, Winstone has continued that pre-lodgement consultation, and the report details the outcome of that consultation. It outlines the recommendations from Iwi and Mana Whenua groups and details how those responses have helped inform and shape the project.
431. Written notice of Winstone's intention to lodge the fast-track application within 20 working days, has been provided to iwi groups where consultation had not been commenced (as per the new process in section 29) in these instances the report outlines the responses received from Iwi and Mana Whenua groups to receiving notification and how those responses have informed the project.
432. Consultation has been undertaken through hui, workshops and site visits, including consultation at the quarry and within iwi settings.

B5.3.1 Relevant Iwi Authorities

433. Winstone have maintained a long ongoing relationship with Ngāti Tamaoho, Te Ākitai Waiohua and Ngāti Te Ata as part of the ongoing operations at Hunua Quarry. The Hunua Kaitiaki hui restarted in 2023 after hui were paused due to Covid 19 pandemic. Ngāti Tamaoho, Te Ākitai Waiohua and Ngāti Te Ata have been involved in ongoing communication with Winstone since May 2023 when a hui restarting the Kaitiaki took place.
434. Consultation with Ngāti Tamaoho, Te Ākitai Waiohua and Ngāti Te Ata commenced as part of the Listed project process on 19 April 2024. Specific consultation regarding the Substantive pit design started in November 2025 and has been ongoing. A Kaitiaki Workshop was held with each of the three Iwi group over the months of January and February 2026. In addition, Ngāi Tai ki Tāmaki and Ngaati Whanaunga were consulted with as part of the iwi consultation.
435. In accordance with the notification requirements in s11(1)(b) the following iwi have been notified of the Substantive Application:
- (a) Ngāti Whanaunga.

- (b) Ngāti Manuhiri Settlement Trust.
- (c) Ngāti Maru Runanga Trust.
- (d) Hauraki Māori Trust Board.
- (e) Ngā Maunga Whakahii o Kaipara Development Trust – on behalf of Nāti Wātua o Kaipara.
- (f) Ngāti Whātua Ōrākei Trust Board – on behalf of Ngāti Whātua Ōrākei.
- (g) Te Whakakitenga o Waikato Incorporated – on behalf of Waikato-Tainui.
- (h) Ngāti Paoa Iwi Trust.
- (i) Ngāti Tamaterā Treaty Settlement Trust.
- (j) Taonga o Marutūāhu Trust (collective cultural redress entity),
- (k) Marutūāhu Rōpū Limited Partnership (collective commercial redress entity).
- (l) Tūpuna Taonga o Tāmaki Makaurau Authority.
- (m) Whenua Haumi Roroa o Tāmaki Makaurau Limited Partnership.
- (n) Tūpuna Taonga o Tāmaki Makaurau Trust.
- (o) Te Ahiwaru Trust (Te Ahiwaru Waiohūa).
- (p) *Hako Tūpuna Trust (Ngāti Hako)*

B5.3.2 Consultation

436. Table 19 below provides a summary of the matters that were raised by each of the three Iwi during the Kaitiaki Workshop. Winstone will continue to engage with Iwi throughout the consultation process.

Table 19: Iwi Consultation Summary

Iwi	Matters discussed
Ngāti Tamaoho	Cultural induction supported Winstone's understanding of Ngāti Tamaoho values which helped to inform the project in a way that responds to Ngāti Tamaoho connections with the quarry. Ngāti Tamaoho emphasised that their role as kaitiaki, grounded in whakapapa and te Tiriti principles. Cultural values were expressed across a network of places highlighting that the project must be understood within a wider cultural landscape. The importance of wai and waterways was identified. Including how wetlands are identified as culturally significant and sensitive environments. The presence of significant archaeological history, artefacts and taonga across the area was noted.
Te Ākitai Waiohūa	The diversion of the stream and what this means for hydrology, natural function, ecology and the protection of cultural values associated with waterways. Ecological values. Restoration, revegetation and long-term landscape outcomes.

Iwi	Matters discussed
	Discovery protocols for archaeology.
Ngāti Te Ata	Stream diversion and the cultural relationship with wai. Ecological integrity across the catchment including for fish passage. Restoration, ecological connectivity and landscape outcomes. Clear processes to manage archaeological material. Request for clear, structured and ongoing engagement.
Ngāi Tai ki Tāmaki	Connection to the broader area north of Hunua. Recognition of wider iwi interests in the Hunua area. Identified the need to maintain communication, provide updates, and continue discussions on potential involvement and relationship frameworks.
Ngaati Whanaunga	Interest in undertaking a site visit to better understand the Project area and its potential effects. Indicated a desire to provide input on their cultural values in relation to the Project, including how these may be recognised and provided for through its development.

B5.3.3 Iwi Consultation Outcomes

437. The Cultural Values and Consultation Summary Report at **Appendix A6.7** has been prepared to address the cultural context and iwi engagement matters required by section 11 and 29 of the Act, including pre-lodgement consultation and notification. In particular it details records of engagement with iwi undertaken in accordance with the FTAA. At section 5.9 of **Appendix A6.7** is a summary of the various engagement activities undertaken by the Applicant. This includes hui, workshops, site visits, cultural induction, ongoing communications and notification letters. Through this process matters raised by iwi were recorded and cultural values summarised. Te Ākitai Waiohū identified a number of key values and expectations in relation to the Project, informed by their 2024 Cultural Values Assessment and engagement undertaken to date. An Addendum CVA was provided from Te Ākitai Waiohū on 30 March 2026. Ngāti Te Ata Waiohū provided a memorandum in March 2026 setting out their position on the Project, following hui and workshops. Ngāti Tamaoho provided a memorandum, dated 23 March 2026 that outlined a neutral summary and key aspects of the proposal including, environmental, cultural and procedural considerations.
438. Through this engagement and the matters that were raised a number of outcomes have been incorporated into the Project including:
- (a) Expectations relating to partnership, kaitiakitanga, protection of whenua and wai, and involvement in management planning, have been taken into account.
 - (b) Cultural values have informed the design of key components of the Project, including the realignment of the Mangapū Stream. These responses have been incorporated into the management plans that have been prepared for the project, including:
 - (i) Mangapū Stream Tributary Realignment Management Plan
 - (ii) Landscape and Ecology Rehabilitation Strategy and Management Plan
 - (iii) Aquatic Fauna Salvage and Relocation Plan

- (iv) Lizard Management Plan
- (v) Pest Management Plan
- (c) The Applicant has undertaken to continue engagement with mana whenua into the post-lodgement phase for the life of the Project. This is consistent with the theme identified by mana whenua as their role as kaitiakitanga in guiding the Project and its implementation.

B5.4 General Consultation

439. A Consultation Summary Report has been prepared by Boffa Miskell and identifies the consultation undertaken prior to lodging the Substantive Application and the outcomes of the consultation (**Appendix B6.4**). The Consultation Summary Report provides detailed information who was consulted, the outcomes of consultation and how the Project has been shaped in response to feedback.
440. Consultation included parties identified in s11 and s29 that required pre-lodgement consultation, those who would be invited by the Panel to comment under s53 and others identified by Winstone that may be potentially affected by the proposal.
441. Parties relevant to the project were identified through several processes including the FTAA information requirements and understanding the persons who may be potentially affected by the project. The groups are identified as:
- **Mana whenua groups** (iwi authorities, Treaty settlement entities, parties to relevant Mana Whakahono a Rohe or joint management arrangements). These groups are identified and addressed above in section B5.3, as required by s 11, 13(4)(j)(ii)-(iv) and 29 of the FTAA.
 - **Local Authorities:** Auckland Council (including Auckland Transport, Watercare, Healthy Waters,) as required by s11(1)(b)(i) parties to be consulted under s29(1)(a).
 - **Central Government Agencies and Administering Agencies:** Heritage New Zealand Pouhere Taonga and Department of Conservation as required by s11(1)(b)(iii) parties to be consulted under s29(1)(a). Additionally, consultation with the Environmental Protection Agency is included.
 - **Requiring authority that has a designation on land to which the substantive application relates** – Ardmore Airport Limited (invited to comment under s53(2)(l) noting the Airspace Restriction Designation applies over the northern part of the Site, mainly the existing processing area and OBDA / Managed Fill areas. All new activities related to this Project occur outside the designation.
 - **Institutional Landholders:** New Zealand Defence Force (owner of land adjacent to the site).
 - **Infrastructure owner:** Counties Energy (occupier of the Site – due to power infrastructure s53(i)).
 - **Tenants of Winstone:** Firth Industries (a Division of Fletcher Concrete and Infrastructure) occupiers of the Project Site (s53(2)(i) - parties invited to comment).
 - **Adjacent Properties:** Adjacent owners and occupiers (s53(2)(h) - parties invited to comment).
 - **Potentially Affected Parties:** Bore Owners (s 13(4)(j)).

442. Consultation has been undertaken using a range of methods appropriate to the consultation group and stage of the project, including:
- Workshops and meetings with regulatory agencies;
 - Technical site visits with council specialists;
 - Door-knocking and direct discussions with neighbouring residents;
 - Written correspondence and letter drops; and
 - Follow-up communication where requested.
443. Consultation commenced in November 2025 and is ongoing. A summary of consultation with each party is provided below. Further details on all consultation undertaken as part of the project including meeting minutes and correspondence with these parties is provided in the Consultation Summary Report in **Appendix A6.4**.
- B5.4.1 **Local Authorities**
444. Under Section 11(1)(b)(i) of the FTAA before lodging the application, Winstone were required to consult with the relevant local authorities. A summary of the consultation with the local authorities is provided in Table 20 below.

Table 20: Local authorities' consultation

Authority	Methods of Consultation	Matters discussed
Auckland Council	Four site visits and seven online meetings from 24 November 2025 to 2 March 2026 Emails	Frequent updates on the status of the Substantive Application. Technical assessments for peer review by Council technical specialists and Council Specialist feedback. General project matters (for example offsetting, Section 30 letter, compliance history). Technical matters including lighting, noise, and wastewater disposal. Ecological management and mitigation approaches and the potential to use Regional Park land for ecological mitigation. Agreement for the removal of the vegetation protection covenants. Groundwater takes and confirmation that there is sufficient available groundwater allocation to enable all takes to be fully exercised.
Auckland Transport	Site visit on 12 February 2026 Emails	Safety of the existing quarry entrance. Potential upgrades to improve entrance safety. The possibility of lane separation at the site entrance. Maintaining sealed access to the stockyard and operational areas. Agreement in principle was reached regarding potential entrance upgrades, subject to further design

Authority	Methods of Consultation	Matters discussed
		development and review by Auckland Transport. Consultation with Auckland Transport remains ongoing.
Watercare	Emails	Confirmed the location of Watercare assets in Hunua Road in relation to the front gate update and that a Works Over Approval would only be required if potentially affected assets were in the area of the upgrade. Watercare confirmed the asset is located on the other side of Hunua Road relative to the front gate.

445. The outcomes of consultation with the local authorities and administering agencies is contained in Table 24 below.

B5.4.2 Central Government Agencies (including Administering Agencies)

446. As noted above in Section B5.1, Winstone is required to consult with administering agencies prior to the lodgement of the Substantive Application. A summary of the consultation with the central government agencies and administering agencies is provided in Table 21 below.

Table 21: Central Government Agencies and Administering Agencies consultation

Authority	Method of consultation	Matters discussed
Heritage New Zealand Pouhere Taonga	Online meeting was held on 8 January 2026 Emails	No recorded archaeological sites were identified within the Hunua Quarry Development Area and the site. The application for an archaeological authority was discussed as a precautionary measure if any unrecorded archaeological material is identified on site during the Hunua Quarry Development. HNZPT have been provided with copies of the draft application material.
Department of Conservation	Site meeting on 23 January 2026 Ongoing emails	Potential wildlife considerations associated with the project. Freshwater fisheries matters. Whether conservation covenants or other approvals may be required. Queries regarding which native fauna are present within the Site.
Environmental Protection Agency	Meeting held 9 March 2026 Emails	The FTAA process.

B5.4.3 Requiring Authorities

447. Under s 53(2)(l) requiring authorities are invited to comment on the Substantive Application. Ardmore Airport Limited (Ardmore Airport) are the requiring authority for Designation 200 that is present across a portion of the Site. Consultation has been undertaken with Ardmore Airport prior to lodgement to provide detail on the application.
448. Part of the Site is covered by the height restrictions in Designation 200, which restrict buildings or structures within a conical surface of 1 in 20 radiating from the airport runways. None of the works proposed infringe the height restrictions.
449. As a precaution, an email was sent to Ardmore Airport Ltd on 19 March 2026 requesting written consent under s 176(1)(b) of the Resource Management Act (RMA) regarding the proposed Hunua Quarry Development. A letter was received on 30 March 2026 from the Airport CEO confirming that the proposed project will not prevent or hinder the airport operations provided for under the designation purpose.

B5.4.4 Institutional Landholders

450. Clause 6(1)(e)-(f) of Schedule 5 of the Act requires that an assessment of environmental effects under the FTAA must include the identification of persons who may be affected by the activity and any response to the views of any persons consulted. A summary of the consultation with the potentially affected institutional landholders is provided in Table 22 below.

Table 22: Institutional Landholders Consultation

Authority	Methods of Consultation	Matters discussed
Counties Energy	Site meeting on 23 February 2026 Ongoing emails	Relocation of 22kV power lines required to accommodate the proposed quarry development. Counties Energy has confirmed that any relocation works must be supported by detailed design documentation. Winstone has agreed that this information will be provided at least 12 months prior to the commencement of Stage 2 of the quarry development, or when the pole relocation works are required. Winstone will continue to keep Counties Energy informed as the Project progresses.
New Zealand Defence Force	Ongoing emails	Information on the Hunua Quarry Development project. Consultation with the New Zealand Defence Force are ongoing.

B5.4.5 Infrastructure Owners

451. Clause 6(1)(e)-(f) of Schedule 5 of the Act requires that an assessment of environmental effects under the FTAA must include the identification of persons who may be affected by the activity and any response to the views of any persons consulted.
452. Counties Energy own 22kV power lines over the Site. A site visit was held with Counties Energy on 23 February 2026. During the site visit it was confirmed that the relocation of 22kV power lines required to accommodate the proposed quarry development. Counties Energy has confirmed that

any relocation works must be supported by detailed design documentation. Winstone has agreed that this information will be provided at least 12 months prior to the commencement of Stage 2 of the quarry development, or when the pole relocation works are required. Winstone will continue to keep Counties Energy informed as the Project progresses.

B5.4.6 Adjacent Properties and Potentially Affected Parties

453. Clause 6(1)(e)-(f) of Schedule 5 of the Act requires that an assessment of environmental effects under the FTAA must include the identification of persons who may be affected by the activity and any response to the views of any persons consulted.
454. Additionally, under Section 53(2) of the FTAA the panel must invite comments from the owners and occupiers of the application site and land adjacent to the application Site.
455. A summary of the consultation with the adjacent properties and potentially affected parties is provided in Table 23 below.

Table 23: Adjacent Properties and Potentially Affected Parties Consultation

Authority	Method of consultation	Matters discussed
Adjacent Owners and Occupiers	Door Knocking Letters Meetings	Noise and vibration from the Hunua Quarry was increasing. Water level concerns for bodies of water surrounding Hunua Quarry. Ongoing monitoring of environmental effects from the development.
Bore Owners	Letters	Impact on water table. Use of bores.

B5.4.7 General Consultation Outcomes

456. This section outlines the outcomes of the consultation, including the key themes raised in feedback and how they were responded to. The key themes, a summary of stakeholders concerns and Winstone's response are provided below in Table 24.

Table 24: General Consultation Outcomes

Key Themes	Concern/Query	Winstone's Response
Traffic and Access	- The configuration of the existing site entrance. - Potential upgrades to improve safety for quarry traffic entering and exiting the site. - Opportunities to improve separation of inbound and outbound vehicle movements. - Maintaining sealed access to the stockyard and operational areas.	The matters have been considered through the preparation of the Traffic Impact Assessment and the design of the proposed entrance upgrades. The discussions with Auckland Transport have helped to inform the design approach of the

Key Themes	Concern/Query	Winstone's Response
	Appropriate lighting associated with the site entrance.	quarry entrance, line separation to improve traffic safety and the preparation of a Traffic Impact Assessment.
Noise and Vibration	- Some residents expressed concern regarding perceived increases in vibration associated with quarry activities. - Residents also expressed interest in understanding how potential noise effects would be assessed and managed.	These matters have been addressed through the project's acoustic assessment and associated management measures including applying more comprehensive noise standards that apply at the notional boundary of all dwellings not just those constructed pre 2001.
Groundwater	- Potential drawdown effects on existing water supply bores. - Historical water level changes noted by some residents. - Water supply security for neighbouring properties.	To assist in understanding potential effects, letters were sent to 15 bore owners to inform them of the project and provide an opportunity to engage further. Groundwater effects are being assessed through the project's hydrogeological assessment. Consultation with bore owners has led to the confirmation of the location of water supply bores and the Groundwater Monitoring and Mitigation Plan includes a requirement to mitigate drawdown effects on private bores.
Landscape and Visual Matters	- Identification of representative viewpoints for the landscape and visual assessment. - Understanding the visibility of the quarry development from surrounding areas. - Integration of the quarry development with the surrounding landscape.	The Landscape and Visual Assessment and Rehabilitation Strategy has been informed by these ongoing discussions with the Auckland Council landscape specialists.
Stormwater and Water Management	- The configuration of proposed stormwater ponds. - Integration of stormwater infrastructure with quarry operations. - Management of sediment and runoff associated with quarry activities.	These matters raised by the Council Stormwater Specialist have been addressed through the project's stormwater design and environmental management framework. Additionally, the stormwater management approaches have been refined.

Key Themes	Concern/Query	Winstone's Response
Cultural and Environmental Interests	• Opportunities to strengthen the relationship between Winstone Aggregates and mana whenua. • Potential development of a Memorandum of Understanding. • Opportunities for employment and internship pathways. • Environmental initiatives including restoration and pest management programmes.	These discussions are explored in the Cultural Values Report and will continue as the project progresses. The report identifies a list of recommendations to ensure iwi are able to actively participate in the Project.
Power lines	• Relocation of 22kV power lines required to accommodate the proposed quarry development. • Counties Energy requested further information including detailed design documentation. • Site visit conducted to confirm requirements.	An agreement has been reached between Winstone and Counties Energy.

B6. The Planning Framework

457. This section of the application is provided in accordance with Schedule 5(1)(h)..

458. Clause 5(1)(h) of the FTAA 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 FTAA:

- (a) A national environmental standard.
- (b) Other regulations made under the RMA.
- (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.

459. 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), being the relevant objectives and policies or rules, and requirements, conditions and permissions in those rules. The purpose of this section is to introduce and set the frame for the relevant statutory and policy frameworks engaged by the Project. The detailed assessment of the Project against the statutory requirements in the above clauses is provided in **Appendix B12.9** and a summary is set out in Section B9.

460. 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.
461. In summary, the Project requires non-complying activity consent overall under the AUP and discretionary activity under the NES-F and NES-CS. Overall, the Project is to be assessed as a non-complying activity.

B6.1 National Environmental Standards

462. National environmental standards (NES) apply directly to consenting decisions and can introduce specific consent requirements and activity classifications. The following have been identified as being relevant and have been set out in detail in the compliance table at **Appendix B12.9** and in summary in section B9.

B6.1.1 National Environmental Standards for Contaminated Land 2011

463. The NESCS applies to specific activities on land where contaminants in soil may pose risks to human health. It is relevant where site history or investigations indicate potential contamination and the proposal involves activities captured by the NESCS. The substantive application for approvals includes both preliminary and detailed site investigations undertaken pursuant to the NESCS, and the NESCS is therefore relevant to the Project.

B6.1.2 National Environmental Standards for Freshwater 2020

464. The NES-F regulates activities that pose risks to freshwater and freshwater ecosystems. It is directly relevant to quarry proposals that involve works in, on, under or near rivers/streams, wetlands and their margins, and activities that may affect freshwater values (including structures, diversion/reclamation and sediment-related effects). In particular, works in and close to wetlands, including vegetation clearance and reclamation of the bed of any river is a discretionary activity under the NES-F as well as the installation of culverts in waterways.

B6.1.3 National Environmental Standard for Air Quality

465. The National Environmental Standard for Air Quality (NES-AQ) came into effect in June 2011. It sets national “bottom line” requirements and ambient air quality expectations (and controls for certain specific sources). The policy framework, ‘activity status’, and relevant standards for quarry dust discharges are usually addressed through regional plan rules, as opposed to the NESAQ. This Standard provides a relevant national benchmark for air quality outcomes, none of which are breached by the proposed activity (the proposal complies with permitted thresholds identified in Schedule 1). The NESAQ is, therefore, of limited relevance to the Project.

B6.1.4 Resource Management (Measurement and Reporting of Water Takes) Regulations 2010

466. This regulation requires decision-makers (primarily regional councils) to consider effects of certain activities on registered drinking-water supplies. The Project does not affect registered drinking-water sources regulated by the NES, and therefore it is not relevant. For completeness, there is a Watercare reservoir located approximately 1.7 kilometres to the north-east of the pit behind a dam on the main stem of the Waipokupu Stream. PDP have concluded that the proposed dewatering at Symonds Hill Pit is unlikely to have any effect on the reservoir [PDP at 4.46.]. Therefore, this regulation is not addressed within this AEE.

B6.1.5 NES for Electricity Transmission Activities (NES-ETA)

467. These regulations only apply to an activity that relates to the operation, maintenance, upgrading, relocation, or removal of an existing transmission line, including any construction activity. As Winstone do not propose to undertake works on any power lines as part of this Project, the NES-ETA is not relevant.

B6.2 National Policy Statements and the NZCPS

468. National policy statements (NPS) provide direction that regional and district plans must give effect to, and that must inform consenting decisions.

B6.2.1 National Policy Statement for Freshwater Management 2020 Amended 2025 (NPS-FM)

469. The NPS-FM sets the overarching direction for freshwater management, including giving effect to Te Mana o te Wai and requiring integrated management across catchments. As the Project includes streamworks, discharges to freshwater and works to drain or partially drain natural inland wetlands, the NPS-FM is relevant to the Project. Quarrying activities have a recognised pathway to the effects management hierarchy in cl 3.22(d) of the NPS-FM and associated NES –F.

B6.2.2 National Policy Statement for Indigenous Biodiversity 2023 Amended 2025 (NPS-IB)

470. The NPS-IB provides direction to protect, maintain and restore indigenous biodiversity, and to apply a clear decision-making approach (including Treaty principles and tangata whenua roles) when managing effects on indigenous biodiversity values. As the Project involves the removal of indigenous vegetation (including areas of significant indigenous vegetation), relocation of indigenous fauna, and the adoption of the effects management hierarchy for effects on indigenous biodiversity, the NPS-IB is relevant to the Project. The NPS-IB cl. 3.11 provides a recognised pathway for use of land for quarrying activities

B6.2.3 National Policy Statement for Highly Productive Land 2022 Amended 2025 (NPS-HPL)

471. The NPS-HPL focuses on protecting highly productive land for land-based primary production. There is no highly productive land (as that term is defined under the NPS-HPL) within the Project footprint, and therefore, the NPS-HPL is not relevant to the Project.

B6.2.4 National Policy Statement on Urban Development 2020 (NPS-UD)

472. The NPS-UD provides direction for well-functioning urban environments and growth planning. It is most directly relevant to plan making and urban development decisions, but it can also provide context where a proposal supports urban development outcomes. While this does not directly apply because the site is located outside of the rural-urban boundary, it is noted that quarrying provides aggregate for urban development including housing and infrastructure.

B6.2.5 National Policy Statement for Infrastructure 2025

473. The NPS-I gazetted in 2025, identifies infrastructure supporting activities which are activities that are not ancillary infrastructure activities but that are needed to directly support infrastructure activities and may include quarrying activities. As such, the NPS is highly relevant to the Project.

B6.2.6 National Policy Statement for Natural Hazards December 2025

474. This National Policy Statement applies to all activities managed under the Act, except for infrastructure (as defined in the Act) and primary production (as defined in the National Planning Standards (NPS)). The definition of Primary Production in the NPS includes quarrying and therefore the NPS for Natural Hazards does not apply to this Project.

B6.2.7 Other National Policy Statements

475. The following NPS are not relevant to the Proposal:
- National Policy Statement for Renewable Electricity Generation Amendment 2025 as the Project does not involve Renewable Electricity Generation.
 - National Policy Statement for Electricity Networks 2008 Amended 2025 as the Project does not involve electricity transmission or distribution.
 - National Policy Statement for Greenhouse Gas Emissions from Industrial Process Heat as the Project does not involve Industrial Process Heat.

B6.2.8 New Zealand Coastal Policy Statement 2010 (NZCPS)

470. The NZCPS is the only compulsory national policy statement under the RMA and guides management of the coastal environment. It is only relevant where the proposal affects the coastal environment or coastal processes and values. As the Project is not located in or adjacent to the coastal environment, the NZCPS is not directly relevant to the consideration of this application. However watercourses related to the Site drain to the coast and 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.

B6.3 Auckland Unitary Plan Context

B6.3.1 Overview

471. The AUP provides the primary regional and district planning framework for the Project. The AUP context is summarised here, with a detailed consent schedule provided in B4, the technical assessments of effects evidence in B7, the management response in B8, and the full statutory planning assessment (objectives, policies, activity status implications and overall conclusions) in below in B9. The detailed rule by rule assessment (including activity status and matters of discretion) is provided in **Appendix B12.10** - Compliance Table for the Relevant Plans and Planning Instruments (Compliance Table). The following provides a brief overview of the project parameters against the AUP provisions.

B6.3.2 Site Planning Controls

472. The Site is subject to the following controls of the AUP (either in part or in whole):

Zones (AUP)

- Special Purpose - Quarry Zone (H28)
- Rural - Mixed Rural Zone (H19.4)
- Countryside Living Zone (H19.7)

Overlays and controls (AUP)

- Significant Ecological Area (SEA) Overlay (D9)
- Outstanding Natural Landscape (ONL) Overlay (D10)
- Natural Stream Management Area Overlay (D4)
- High-Use Stream Management Area Overlay (D3)
- Quarry Buffer Overlay (D27) Airspace Restriction Designation (D23).

B6.3.2.1 Summary Table

473. The AUP planning context, key layers and the associated assessment focus for the Project are summarised in Table 25 below. The detailed rule-by-rule assessment (including activity status, standards, and matters of control/discretion) is provided in the Compliance Table in **Appendix B12.10**.
474. Activity status is summarised in Section B6.4 and set out in respect of each regulation/rule/standard requiring consent in **Appendix B12.10**. It is advised that the Airspace Restriction Designation applies over the northern part of the Site, mainly the existing processing area and OBDA / Managed

Fill areas. All new activities related to this Project occur outside the designation and therefore it is not considered further in terms of assessing any effects of the Project.

Table 25: AUP planning context, key layers and the associated assessment provisions

H28 Quarry Zone	Scope of Control	Assessment Focus	AEE Navigation
H19 Rural Mixed	Anticipated land use and operational standards by zone	Site spans SP Quarry / Rural Mixed / Countryside Living and is outside RUB	B4 (consents), B9 (statutory assessment)
E3 Waterbodies	Additional constraints and assessment focus	Stream overlays and SEA / ONL and quarry buffer activated requiring assessment	B7 (effects), B8 (conditions) B9 (statutory assessment)
E7 Water quantity / drilling	Quarry activities and quarry-specific standards	Controlled quarry activity pathway, but noise / vibration / blasting standards infringed - RD via C1.9(2)	B4 (consents), B7 (noise / vibration), B8 (conditions), B9 (statutory assessment)
E8 Stormwater	Rural Mixed land use framework	Mineral extraction on 17.2 ha (D)	B4, B7 (effects), B9 (statutory assessment)
E11 / E12 Land disturbance	Works in/around streams (diversion, reclamation, structures)	Stream diversion (NC in SEA/ONL), bridge/culverts, and reclamation/drainage (NC)	B4, B7 (hydrology/ecology), B8 (conditions), B9 (statutory assessment)
E14 Air quality	Water take/use/diversion and dewatering	Groundwater diversion by excavation (RD), dewatering (RD), groundwater take (D), surface water diversion in Stream MA (D)	B4, B7 (hydrology / groundwater), B8 (conditions), B9 (statutory assessment)
E15 Vegetation and biodiversity	Stormwater diversion/discharge	Runoff to sediment ponds and discharge to receiving water (D)	B4, B7 (stormwater), B8 (conditions), B9 (statutory assessment)
E25 Noise / vibration / blasting	Earthworks/land disturbance controls (regional and district)	Slope / sediment control protection area, SEA land disturbance, ONL land disturbance and district earthworks thresholds	B4, B7 (land disturbance / ESCP), B8 (conditions), B9 (statutory assessment)
E27 Transport	Access way and vehicle trip generation.	The safe and efficient operation of Hunua Road.	B4, B7 (transportation), B8 (conditions), B9 (statutory assessment)
E30 Contaminated land	Dust/air discharge controls for quarrying	>200 t/hr extraction: controlled in Quarry zone / discretionary in Rural zone; crushing separation standard noted	B4, B7 (air quality), B8 (conditions), B9 (statutory assessment)

H28 Quarry Zone	Scope of Control	Assessment Focus	AEE Navigation
E36 Natural hazards	Indigenous vegetation removal, riparian/wetland setbacks, SEA/ONL vegetation rules	32.8 ha indigenous vegetation removal outside RUB; vegetation removal within Stream MA; ONL / SEA vegetation triggers	B4, B7 (ecology), B8 (conditions), B9 (statutory assessment)
	Noise and vibration standards (incl. blasting)	Blasting noise non-compliance - RD consent	B4, B7 (noise/vibration), B8 (conditions), B9 (statutory assessment)
	Discharges related to soil disturbance where contaminants present	PSI and soil acceptance criteria pathway (screening and management)	B2.17 (baseline), B4 (if triggered), B7 / B8 (conditions), B9 (statutory assessment)
	Floodplains / overland flow paths / landslide risk controls	Temporary bridge / culverts in 1% AEP floodplain (RD) and landslide hazard risk area structures (RD), plus hazard reporting expectations	B7 (hazards), B8 (conditions), B9 (statutory assessment)

B6.3.3 Reasons For Consent

475. The Proposal requires approvals under both the AUP and the NES-F and the NES-CS. As detailed in the compliance table in **Appendix B12.10**, the Project is treated overall as non-complying under the AUP because it includes non-complying E3 stream diversion works within SEA and ONL overlays and associated reclamation and drainage works. Consent is required as a discretionary activity under the NES-F for earthworks or land disturbance, vegetation removal and the taking, use, damming or diversion of water in or within proximity to wetlands, reclamation of the bed of a river and the placement, use, alteration, extension, or reconstruction of a culvert in, on, over, or under the bed of a river that does not comply with the permitted conditions. Consent is also required under the NES-CS for a controlled activity to disturb soil within the stockyard area, which exceeds the permitted activity volumes in Regulation 8(3)(c).
476. The effects and mitigation for these works are assessed and reported in B7 with the provisions assessment and overall planning evaluation set out in B9.

B6.4 Treaty Settlement Provisions and Statutory Acknowledgements

477. A substantive application must include information about any Treaty Settlements that apply to the Project Area, as required under Clause 5(1)(i) of Schedule 5 of the FTAA, including:
- (a) Identification of the relevant provisions in those Treaty Settlements.

- (b) A summary of any redress provided by those settlements that affects natural and physical resources relevant to the project or project area.
- (c) For FTAA purposes, Treaty Settlement means Treaty settlement means a Treaty settlement Act or a Treaty settlement deed.

478. In addition, a substantive application must include information regarding whether the site is within or adjacent to a statutory area (as defined in a relevant Treaty settlement Act) pursuant to cl 5(1)(b).
479. This section records the Treaty settlement instruments that have been identified as relevant to the Project area based on its location within the Hunua Ranges and receiving catchment context and summarises the implications of those instruments. Further detail on Māori interests is provided in B518 and B5.2.

Statutory acknowledgement within the project area

480. A statutory acknowledgement relevant to the project site is recorded in Schedule 1 of the Ngāti Tamaoho Claims Settlement Act 2018 and is also identified in AUP Appendix 21.
481. The project site is located within the statutory acknowledgement area for the Otūwairoa Stream and its tributaries, including the Waipokapū Stream, Mangapū Stream and Waihoehoe Stream.

Statutory acknowledgment within the area covered by the application

482. A further statutory acknowledgment area sits to the north and east of the proposed pit extent in favour of Ngāi Tai ki Tāmaki. It is recorded in Schedule 2 to the Ngāi Tai ki Tāmaki Claims Settlement Act 2018 and is also identified in AUP Appendix 21.
483. The zone of influence for groundwater effects which Winstone is seeking to approve includes catchments of the Wairoa River and its tributaries. **Appendix A6.10** shows the statutory acknowledgement areas relevant to the Project site and receiving environment.

Other information about Treaty Settlements applying to the Project Area

484. Section 13(4)(l) and Schedule 5, clause 5(1)(i) of the FTAA requires consent applications to include information about any Treaty Settlements that apply in the Project area, including 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.
485. The following iwi have a Treaty Settlement (or terms of negotiation) with either a statutory acknowledgement area or an area of interest within the Project area:
- Ngāti Tamaoho - the Ngāti Tamaoho Claims Settlement Act 2018
 - Ngāi Tai ki Tamaki - Ngāi Tai ki Tamaki Claims Settlement Act 2018
 - Ngāti Paoa - Ngāti Paoa Claims Settlement Act 2025
 - Tāmaki Makaurau Collective - Ngā Mana Whenua o Tāmaki Makaurau Collective Redress Act 2014
 - Waikato-Tainui - Waikato Raupatu Claims Settlement Act 1995
 - Te Ākitai Waiohua - Te Ākitai Waiohua Deed of Settlement 12 November 2021
 - The Marutūāhu Iwi Collective Deed of Settlement initialed on 27 July 2018
 - Ngaati Whanaunga - Ngaati Whanaunga Deed of Settlement 25 August 2017

- Ngāti Tamaterā - Ngāti Tamaterā Deed of Settlement 20 September 2017
- Ngāti Te Ata - Ngāti Te Ata Terms of Negotiation 29 Jun 2011
- Ngāti Maru (Hauraki) - Ngāti Maru (Hauraki) Deed of Settlement 8 September 2017.

486. The settlement documents are reviewed in detail in section 3 of the Cultural Values Report (**Appendix A6.7**), but it is noted that in accordance with Schedule 5, clause 5(1)(i)(ii), none of the redress provided in these settlements affects the natural and physical resources relevant to the Project area.

B6.4.1 Iwi Relationship Documents

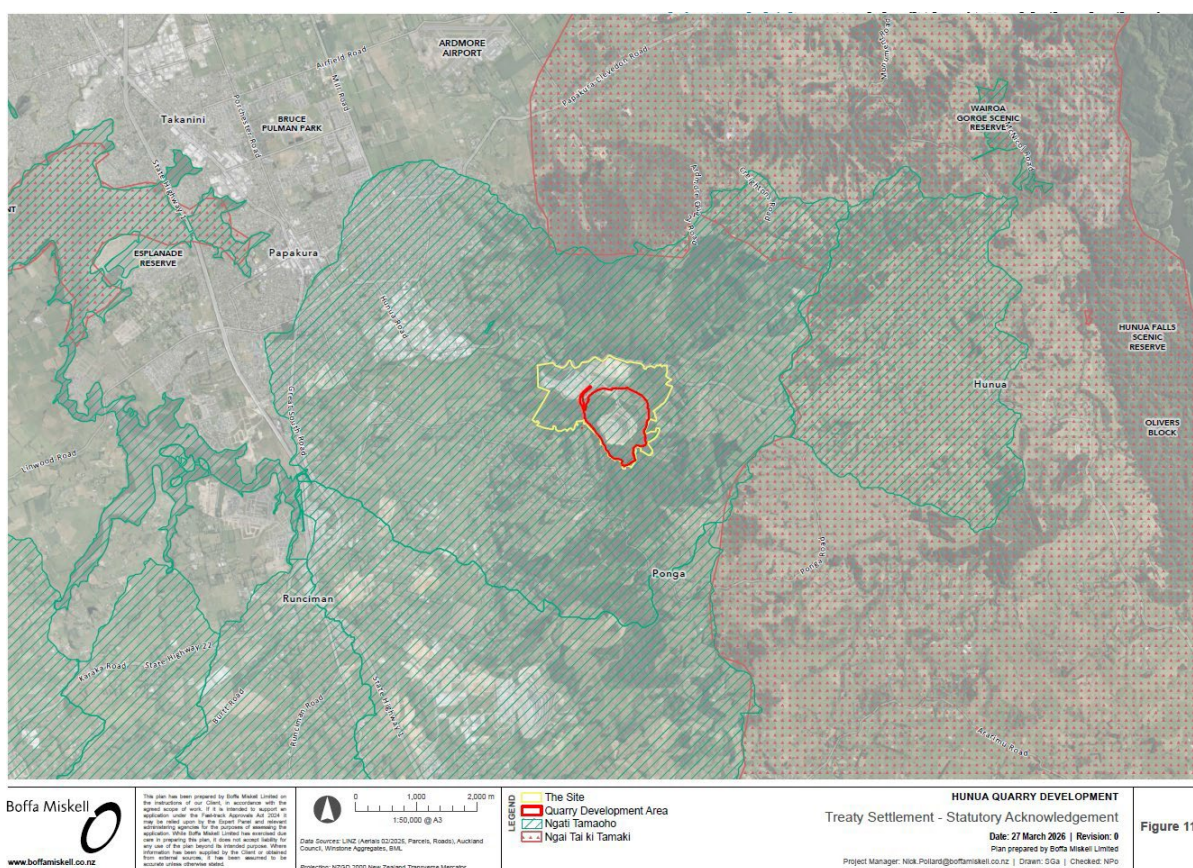


Figure 24: Statutory Acknowledgement Areas

487. Iwi relationship documents include documents and instruments that support engagement, participation, and ongoing management of effects. These include settlement-derived protocols and relationship instruments (where relevant) and project-specific engagement mechanisms established for Hunua Quarry. The iwi relationship documents are as follows:

- Primary Industries Protocol and Taonga Tūturu Protocol: Ngāi Tai / Ngāti Pāoa (and agencies).
- Relationship agreements / statements of association / letters of introduction: Te Ākitai Waiohūa (and agencies).
- Kaitiaki forum terms of reference (or equivalent): Winstone and mana whenua reps.

- Cultural induction record / summary: Winstone and Ngāti Tamaoho.
- Engagement log (hui / site visits/workshops): Winstone and all iwi engaged.

488. A complete schedule of iwi relationship documents relevant to the Project (including any settlement protocols, relationship instruments and project-specific engagement frameworks) are provided in **Appendix A6.7** and the key engagement outcomes are summarised in Section B5.2.

B7. Assessment of Effects (including Mitigation Measures)

489. This section of the applicant 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, including a description of any mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effects of the activity. Clause 7 of Schedule 5 sets out the matters to be covered in the assessment of environmental effects.

490. The actual and potential effects on people in the neighbourhood (including on owners and occupiers of land adjacent to the Project area pursuant to cl 6(1)(e) of Schedule 5), and, (where relevant,) the wider community and the environment more generally are assessed below and in the supporting technical assessments submitted with this application.

491. Having regard to the above, the scope of the application and the consents required, it is considered that the following effects are relevant:

- (a) Positive effects;
- (b) Ecological effects;
- (c) Archaeological effects;
- (d) Transportation effects;
- (e) Dust /Air Quality effects;
- (f) Landscape, visual and natural character effects;
- (g) Hydrology, surface water and groundwater effects;
- (h) Land disturbance effects;
- (i) Geotechnical and site stability effects;
- (j) Noise and vibration effects;
- (k) Stream realignment effects;
- (l) Ground contamination effects
- (m) Effects on cultural values;
- (n) Climate change and natural hazard effects; and

- (o) Economic effects.

B7.1 Positive Effects

B7.1.1 Provision of Regionally Significant Mineral Resources

492. Mineral resources are identified as a foundational input and minerals, particularly aggregates are identified in the AUP as necessary to support growth and development, and renew and maintain buildings, roads and infrastructure. The provision of these resources, including availability and delivered cost has direct influence on project feasibility and construction timelines. As confirmed in **Appendix B12.4.4 Economic Assessment (Economic Assessment)** given the importance of aggregate, its supply influences the broader competitiveness of a regional economy. This is also in the context of the Auckland aggregate market where current and projected demand often exceeds supply. Ensuring there is ready access to suitable quality aggregate resource, that is locally available will readily contribute to supporting Auckland's growth and meet the ongoing development and renewal of infrastructure necessary for Auckland's growing population. The Project is well located to serve demand in Southern Auckland which is projected to accommodate a substantial share of Auckland's population growth over the next 30 years.
493. **Appendix B12.4.17 Hunua Quarry Expansion Resource Report (Resource Report)** confirms that the aggregate resource, is an "indurated Waipapa Group greywacke, a strong, durable rock that has supplied Auckland's civil infrastructure market since the 1920s" and investigations by Winstone have confirmed that there is a substantial volume of aggregate resource to support a supply capacity for up to 80 years. This is a regionally important rock deposit. A key consideration for the viability of aggregate extraction at the Site is the thickness of overburden, the degree of weathering that has diminished the quality of the resource and the recoverable rock. Models developed by Winstone, as discussed in the Resource Report, confirm that there is a favourable strip ratio to support viable extraction in excess of 225 million tonnes.
494. Hunua Quarry is well established on the site and Hunua Road is identified in the Auckland Strategic Freight Network as providing connectivity to the arterial road network (as identified in the AUP) and convenient access to Southern Auckland and through to State Highway 1. If granted, the consents package will secure additional mineral resources to provide for the on-going supply of aggregate to the Auckland market for an estimated 80+ years. Efficiencies can be achieved given the Project seeks to expand and deepen the Symonds Hill Pit providing access to the aggregate resource and relying on the existing infrastructure established on site. The ongoing development of the Hunua Quarry avoids the need to establish a new quarry elsewhere, aggregate can only be quarried where the resource is available and where it is accessible (i.e. hasn't been sterilised due to incompatible land use). Market Economics have estimated in the Economics Assessment that establishing a new quarry of this size in the region would require around 10-years to operationalise and capital investment of some \$300m, as well as introducing the adverse effects of quarrying activity in a new location.
495. The Project will also avoid emission costs by providing for a secure supply, in an appropriate location. When considered against possible alternative aggregate sources, the Economic Assessment concludes that compared with out-of-region locations in the Waikato or Northland, the Project will deliver considerable cost savings (which are a proxy for economic benefits, in circumstances where demand would otherwise have to be met elsewhere). The Economic Assessment estimates if sourcing from Smythes Quarry, the avoided costs would be \$663 m (low

estimate) realised over the duration of the project or in the order of \$1.8bn compared with sourcing from Maungaturoto¹³. The Economic Assessment also evaluates the broader efficiencies in terms of avoided social costs of crashes, determining that there is a considerable saving and therefore benefit in terms of the Project when considered against the travel necessary to transport the aggregate from either Smythes or Maungaturoto.

- 496. The construction of the Western Haul Road will provide operational benefits and reduce adverse effects of quarrying such as emissions, vehicle usage and tyre wear. The reduced travel distance and lower elevation between the pit to crusher will save time, estimated in the Economic Assessment as a 32% increase in tonnes delivered to the crusher per scheduled hour per truck. It will also decrease the total number of trucks needed and reduce the fuel costs, with a savings of \$1.8m annually and tyre costs expected to reduce half.
- 497. The Project will include an upgrade to the Hunua Road site access to accommodate increase in heavy vehicle movements. This will involve providing a full right turn bay within the existing road reserve, a squaring up of the access to Hunua Road, provision of 40m stacking distance for the right turn bay (i.e. two truck lengths); installation of a central solid splitter island at the entry to ensure trucks do not cut across the entry; sealing of at least the first 50m of access into the site; installation of an afterhours gate set back some 50m from the entrance and retention of the existing “trucks crossing” signage.
- 498. Therefore, despite the Project almost doubling production at the quarry, the introduction of the recommended right turn bay upgrades will result in a net positive gain for the transport network. In addition, the increase in truck volumes will not adversely impact on the safe or operation of the wider transport network. These upgrades will ensure the site access accords with the Austroads “Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management”.

B7.1.2 Economic Benefits

- 499. As noted above, economic benefits are generated by the Hunua Quarry providing the foundational materials for buildings, development and maintenance of road and infrastructure. The resource including its availability and delivered cost released by the Project influences the competitiveness of the regional economy. Assessed conservatively, the avoided cost analysis estimates regional economic benefits of the Project over its life in excess of \$693 m, alongside the significant value added and employment impacts with the spend level the Project requires. A (current) annual revenue of \$65m illustrates the scale of the project and the associated investment in plant and labour. The Project is aligned with projected growth identified in the Government's Going for Growth agenda (2025) providing ready access to the aggregate resource at a scale and in a proximate location to meet the needs of the construction sector.
- 500. The Project will secure a continuation of high-quality aggregate supply for the next 80-plus years, and contribute to the maintenance of a competitive, resilient market for construction inputs in Auckland. This in turn will have positive effects on the wellbeing of communities in Auckland, build resilience and provide an essential component necessary for the delivery of infrastructure and development projects. The economic benefits for the region attributable to the Project will be regionally significant and given the regions contribution to the New Zealand's economy, also material nationally.

¹³ The transport costs have been estimated in section 5.4 of the Economics Assessment and the values cited are extracted from Table 7 applying the mid-point scenario for the difference of the Project and transport costs from Smythes Quarry in the Waikato or Maungaturoto in Northland.

B7.1.3 Other Benefits

501. The ecological management approach proposed in response to the proposed removal of indigenous vegetation, modification of streams and potential for impact on wetlands and fauna, incorporates a number of aspects that provide ecological benefit above and beyond directly addressing effects. There will be net ecological gain in relation to the extent of planting areas, riparian areas, weed removal and pest management which can be considered a benefit of the Project I.
502. The current quarry operates in accordance with the Auckland Plan noise standards, which apply a noise standard at the notional boundary of any dwelling outside the SPQZ that existed at 1 January 2001 (the pre-2001 notional boundary limits). The dwellings (and therefore the notional boundaries) nearest to the quarry were all established after 1 January 2001. Therefore, the only control on noise from the quarry at houses constructed after 1 January 2001 are the noise limits at the QEL.
503. It is proposed as part of this Project, that the noise limits will apply at the notional boundary of any site outside the Special Purpose – Quarry Zone. This applies a much greater level of protection for those living in proximity to the quarry and will ensure the maintenance of amenity values, more akin to those anticipated in a Rural Zone.

B7.2 Ecological Effects

B7.2.1 Effects Relating to Quarry Pit Expansion

B7.2.1.1 Effects on Flora / Vegetation Clearance

504. A total of 44.46 ha of terrestrial indigenous vegetation communities will be cleared over the life of the proposed quarry expansion, along with 4.15 ha of exotic scrub (**Table 26**). Stages 1-3 include development of the stream realignment and haul road and result in removal of 12.82 ha of ecologically significant vegetation.

Table 26: Total extent of vegetation types within proposed quarry expansion footprint.

Vegetation type	Area (ha)	% of total
Tree-fernland with nīkau, emergent pūriri and broadleaf scrub	10.14	20.9
Kānuka forest with emergent broadleaves & podocarps	8.38	17.2
Tawa-taraire forest with mature kānuka	14.93	30.7
Native planting/weedy scrub mix	8.71	17.9
Kānuka/manuka scrub	2.04	4.2
Kauri, podocarp, broadleaf forest	0.26	0.53
Subtotal – significant vegetation	44.46	73.5

Vegetation type	Area (ha)	% of total
Native planting/weedy scrub mix	8.71	17.9
Exotic scrub	4.15	8.54
Total	48.61	100

505. Vegetation to be removed amounts to 4.55% of the total SEA_T_5323 area, on the northern and northwestern periphery of the SEA. The removal largely impacts the northern margin of SEA_T_5323 and expands the gap between SEA_T_5323 and SEA_T_5289 made by the existing quarry site.
506. Approximately 6 ha of forest within the SEA overlay that adjoins the eastern margin of the Site will be isolated from the otherwise contiguous forest area as a result of the proposed quarry expansion. The roadway to 165 Middleton Road, will separate this fragment of SEA forest and the main body of the SEA to the south. This reduces ecological connectivity.
507. In the context of effects arising from forest clearance, “edge effect” is a collective term for changes that occur in a forest habitat as a consequence of removing part of a forest stand and thereby creating a new edge. Changing microclimatic conditions may arise and increased edge length and openness can cause spread of effects into bush areas. The quarry expansion will move the edge outwards and into the existing forest, as has occurred over the past 15 years with the progressive expansion of the Symonds Hill Pit.
508. The Project will result in a 24% increase in the exposed edge of the contiguous forest area currently present around Symonds Hill Pit (increasing from the current 2,042m extent). The rate of pit expansion and associated change in forest edge is anticipated to continue the current situation where dense growth of treeferns and shrubs on the forest edge provides an effective buffer to the forest interior, mediation the intrusion of noise, dust and humidity effects and suppressing weed incursions. No active measures are therefore considered necessary to mitigate edge effects.
509. Overall the ecological assessment identifies that there will be an unavoidable loss of indigenous vegetation, some of which has significant ecological values, and a loss of ecological connectivity, which if not addressed will be a significant adverse effect. The approach to managing this significant effect on flora is set out in section B7.2.3 below.

B7.2.1.2 Effects on Fauna

510. In the absence of mitigation and specific fauna management, forest clearance would result in the likely mortality of lizards and the loss / modification of habitat, particularly of elegant gecko, despite the lack of observation of lizards within the project area. Lizard mortality will primarily be avoided and otherwise minimised through implementation of survey and salvage / relocation protocols prior to and during vegetation clearance works. Loss of lizard habitat is a residual effect that will be offset/ compensated by revegetation to reinstate forest habitat over the medium to long term, and pest control to improve the viability of existing lizard populations in remnant forest areas, and over time, in adjoining revegetation sites. The most significant indirect effect of habitat clearance is increased exposure to predators as new forest edges are created. Intensification of pest management effort is proposed to address this effect.
511. No Hochstetter's frogs were recorded during the surveys of the Mangapū Stream tributary, and habitat was observed as sub-optimal. Accordingly, the effects of the proposed Hunua Quarry

Development expansion on frogs are assessed as negligible, and no effects management is required or recommended.

512. No adverse effects on any bat colonies present in the Hunua Ranges are anticipated as a result of the proposed quarry Hunua Quarry expansion. To ensure that no bats are affected by the works, review of potential roost trees is proposed as a condition of consent.
513. Loss of habitat for roosting, foraging and nesting are the main effects on native bird species, notwithstanding that extensive similar or better-quality habitat is present in the adjoining SEA and surrounding forest and scrubland patches. Fauna management protocols to minimise effects on nesting birds will be employed during vegetation clearance to minimise mortality risk. As for lizards, the most significant indirect effect of habitat clearance on birds is increased exposure to predators as new forest edges are created. Intensification of pest management effort is proposed to address this effect. Loss of habitat is a residual effect that will be offset/ compensated by revegetation to reinstate forest habitat over the medium to long term, and pest control to improve the viability of existing bird populations in remnant forest areas and over time, in adjoining revegetation sites.
514. There is not considered to be any adverse effect in relation to bats or frogs. There is the potential for significant adverse effects on other indigenous fauna if management methods are not applied. The approach to managing the potential for impacts on fauna is set out in section B7.2.3 below.

B7.2.1.3 Effects on Wetlands

515. The Project will result in the direct removal of 0.22 ha of wetland features, including 0.12 ha of ecologically significant forest seepage, and 0.1 ha of degraded exotic grass-dominated swamp. In addition, works will result in the likely drainage of a further 0.22 ha of wetland extent (0.09 ha of forest seepage, 0.14 ha of exotic grass-dominated swamp) within 100m of the Site because of partial removal.
516. This anticipated unavoidable 0.44 ha loss of wetland extent in total is considered to be a significant adverse effect on wetland values that cannot be avoided or mitigated within the Site. The approach to managing the potential for significant impacts on wetland values is set out in section B7.2.3 below.

B7.2.1.4 Effects on Freshwater Ecology

517. The proposed Hunua Quarry Development will result in the permanent removal and loss of intermittent and permanent streams. Effects specific to the realignment of the Mangapū stream tributary are addressed in section B7.2.2 below.
518. Although quarrying of streams is not strictly stream reclamation¹⁴, the watercourses and their channels no longer remain. The loss of watercourses results in the permanent removal of aquatic habitats, loss of biodiversity and habitat for biodiversity, and a decline in ecosystem services. Notably with quarry expansions, once the watercourses are removed, they cannot be replaced, and the effect is permanent. The loss of watercourse extent is assessed as a significant adverse ecological effect (prior to application of the effects management hierarchy).
519. The two new culverts within Mangapū Stream tributaries 3 and 4 will change the nature of the stream bed from its natural characteristics. The loss of stream habitat from the installation of culverts, is an adverse effect on aquatic values through the loss of a length of stream habitat. The installation of culverts that provide for fish passage (of climbing fish) is not possible in this steep environment. The

¹⁴ Reclamation = the infilling or covering of riverbeds to create dry land.

residual effect of the loss of habitat from both the culverts and quarry expansion has been assessed collectively.

520. Control protocols and devices are proposed to reduce the potential for erosion of bare soils to occur (erosion control) and to employ treatment devices to treat sediment laden water prior to discharging runoff from the site (sediment controls), by way of an Erosion and Sediment Control Plan (ESCP) and associated monitoring of effects on waterways through both the ESCP and through the Ecological Management Plan. Where ESCP principles are implemented, it is not expected that excess sediment resulting from the quarry operations will result in adverse effects on the aquatic ecological values, and conditions of consent relating to water quality can be met.
521. In addition to stream loss or realignment, works in or around streams may directly impact aquatic habitat through disturbance and through sediment and temperature-related effects. Care is therefore required for works in and around watercourses to minimise potential effects as much as possible. The ESCP sets out the plans for works around streams to avoid and minimise sedimentation to streams, including for the installation of culverts within watercourses and structures adjacent to watercourses. In the absence of management to address effects, the works will have a significant impact on aquatic fauna.
522. The proposed dewatering at the Site may potentially affect stream low flows below RL 60 m and also cause a reduction in the regional groundwater contribution to the streams east of the fault as some of this upwelling groundwater flow could be diverted to the pit instead. Streams potentially affected east of the pit include: Taitaia Stream, Waipokopu Stream, Mangapū Stream, Waihoihoi Stream, sub-catchments of Hingaia Stream and small portion of Papakura Stream sub-catchment, west of Taitata. Longer term effects of continuing lower baseline flows in aquatic ecosystems are not well understood, but the available evidence points to no single consistent response in waterways and the potential for significant impacts. Flow augmentation will be undertaken to ensure that low flows are maintained, and monitoring will be undertaken to better understand flow levels. It is considered that augmentation of flows is an appropriate remedy for any potential effects of dewatering on aquatic ecological values.
523. The approach to managing the significant impacts on freshwater ecology is set out in section B7.2.3 below.

B7.2.2 Effects Relating to Stream Realignment

524. Realignment of a tributary of Mangapū Stream is required to allow for the pit expansion and access to the aggregate. The realignment is a re-location of the watercourse; essentially the watercourse is moved with the aim of it remaining as much as is practicable with the same ecological values and functionality.
525. The proposed realignment of the Tributary will result in an approximate 0.12 km² reduction in catchment area in the lower portion of the Mangapū Tributary catchment. This will cause a small reduction in flows to the realigned watercourse and Mangapū Stream itself. The proposed realignment will also modify the confluence location of where Mangapū Tributary flows into the mainstem of Mangapū Stream.
526. The approach to realignment has been carefully considered and designed to address ecological impacts. The staging and design of the works is detailed in the Ecological Report (**Appendix B12.4.5**) and has included principles of design for the realignment and new channel to ensure that stream ecological functions are maintained or improved upon. The design includes natural features such as cascades, runs, riffles, gravel bars, and small and large pools to create meander and

provide habitat diversity and channel complexity. Fish passage has been integrated, with areas where fish can rest and feed (e.g., lower gradient and refuges), and appropriately sized and staged waterfalls and cascade sequences. A waterfall/cascade sequence is included to provide a barrier for non-climbing exotic fish species from entering the realigned channel and protect the tributary from exotic fish incursion.

527. Riparian vegetation is to be planted along the length of the stream realignment, including appropriate riparian species selection to enhance stream ecology through providing shade to the stream, reducing water temperature, providing habitat and a food source. The stream profile should allow the planting of riparian vegetation close to and extending over the water surface to create ample stream edge habitat. This will provide shading to the water surface, detritus in the form of fallen leaves and potential habitat for macroinvertebrate species.
528. Phased livening of the realigned channel will occur to transition ecological values and ensure salvage and relocation of aquatic fauna can be undertaken. It is anticipated that natural colonisation will then occur over time.
529. There is a potential for increased sediment deposition into the Mangapū Stream especially around the new confluence of the Mangapū Stream mainstem and the realigned stream channel. The expert ecologists have assessed the potential for such sediment and consider the ESCP approach will mitigate risk and if there is any residual sediment discharged they note that notwithstanding changes in flow and substrate, all watercourses find their own natural equilibrium or a steady state where the ecological characteristics and features stabilise. They consider that there will not be any long term adverse effect of such sediment subject to mitigation measures and monitoring as set out in the ESCP and through the Ecological Management Plan.
530. Ongoing monitoring is proposed to measure the overall success of the realigned stream channel, using habitat and macroinvertebrate community composition metrics. Ecological Monitoring of the stream channel should be undertaken annually for five years post-livening, and again at Year 10 to ensure the realigned channel is meeting ecological objectives and function. The riparian vegetation planting will be inspected at least every three months to ensure success of planting and manage pest species.
531. The loss of 1,200m of the watercourse is considered to be a significant adverse ecological effect (prior to application of the effects management hierarchy). In applying the effects management hierarchy to the consideration of effects on the watercourse, the stream realignment represents a remedy for much of the removal of the Mangapū Stream tributary. Essentially, the remedy is to 'move' the stream recreating some 571m of new stream length, so the watercourse is not lost or reclaimed in its entirety, but is, in part, placed elsewhere. The realignment of the Mangapū Stream tributary represents a unique situation, as the opportunity for the livening of the realigned channel can occur over several months or even up to two years.
532. Following realignment of Mangapū Tributary, there remains a residual 630 m of stream extent removed which is a significant ecological impact. Notwithstanding the realignment of the Mangapū Tributary in part, the creation of additional new stream length and channels is not a feasible option. However, improving connectivity of streams in a watercourse network where it forms a viable and credible improvement in the extent of availability of the catchment length and stream area to aquatic fauna is an acceptable compensation technique. The offset areas and compensation to address this residual loss are described in section B7.2.3 below.

B7.2.3 Proposed Ecological Effects Management

533. Having assessed the ecological values of the various areas that will be modified as a result of the proposal, the effects management hierarchy has been applied to these areas and values. This provides an understanding of the method of addressing effects across various values. Avoidance, minimisation and remedy of adverse effects on ecology is proposed wherever possible and is described above. Where residual effects remain after avoidance, minimisation and remedy, offsetting and compensation is proposed. An integrated approach to restoration, enhancement, offsetting and compensation is proposed to maximise ecological outcomes.

B7.2.3.1 Indigenous Vegetation Offset and Compensation

534. A biodiversity offset / compensation package is proposed to address the loss of 44.46 ha of indigenous forest and scrub and associated terrestrial fauna habitat over the life of the Project. While some of the sites proposed for revegetation are small, planting in accordance with the proposed restoration will reduce fragmentation and edge effects in the surrounding vegetation. The proposed planting will introduce a more varied mix of secondary forest species into areas of low-complexity scrubland, facilitating the development of a more diverse secondary forest community over the medium to long term.
535. The terrestrial ecology offset and compensation proposal includes:
- Offsets in the form of a total of 85.62 ha of revegetation within the Hunua Quarry landholding and surrounding landscape, at Meremere Quarry and within the Hunua Regional Park;
 - Comprehensive pest management across some 69.5ha of forest and scrub within the Hunua Quarry Site and adjacent revegetation areas staged during the consent implementation (excluding Hunua Pit re-forestation), in accordance with the Pest Management Plan provided with the application. NB this in addition to those areas already subject to pest control but enhanced with revised landscape-scale strategy.
 - Comprehensive pest management across 29.4ha of forest and scrub within the Meremere Quarry Site and adjacent revegetation areas for the duration of the consent, in accordance with the Pest Management Plan provided with the application.
 - Extensive weed control to make way for revegetation plantings, particularly within Hunua Road and Hunua Regional Park.
536. The offset areas required to fully offset the project have been calculated using the Department of Conservation Biodiversity Offset Accounting Model and would represent an offset area of 96.7 ha required for full offsetting and would equate to a ratio of approximately 1:2.2 relative to the overall impact area.
537. Areas identified for offsetting will be replanted and will include:
- Stages 1 – 4 of quarry development will involve removal of 17.03 ha of indigenous vegetation (mainly mature secondary broadleaf forest), requiring an offset of 40.2 ha. Tranche 1 plantings (59.82 ha) will commence with the granting of consent and will fully offset Stages 1 – 4.
 - Stages 5 – 8 of quarry development will involve removal of 27.39 ha of mature and early successional indigenous vegetation, requiring a modelled offset of 56.5 ha. Tranche 2 (25.8 ha) plantings will commence at approximately Yr 30 and partly offset Stages 5 – 8. Combined with the additional buffer planting from Tranche 1 (19.62 ha) this provides a total of 45.42 ha.

538. Areas identified for revegetation amount to a total of 85.62 ha, leaving a shortfall of 11.08 ha to achieve full offset. An additional area of 16.33 ha of existing indigenous bush has been identified for protection in compensation for this shortfall. In addition, strategic and comprehensive pest and weed control over the Hunua Quarry property and adjoining revegetation areas is proposed by way of compensation to address the shortfall in planting area and ensure biodiversity benefits meet or exceed losses.
539. The pest and weed control package will build on existing pest management undertaken and aims to gain efficiencies, improve pest management control, protect existing and enhance new areas, establishing defendable restoration areas with actual and potential future ecological connectivity, plus new pest management actions to be undertaken at the Meremere Quarry site. Actions include:
- Sustained suppression of key target predator/pest animals (rats, possums, hedgehogs, mustelids, feral cats).
 - Sustained suppression of key target pest animal browsers (ungulates, possums, Leporidae).
 - Removal of wandering stock from enhancement planting areas.
 - Removal of pest plants in planting enhancement areas
 - Sustained suppression of key target invasive pest plants in all pest management areas outside of enhancement planting areas (elimination for some species if feasible).

B7.2.3.2 Wetland Offsets

540. The proposed Quarry expansion will result in the loss of a total area of 0.44 ha of natural inland wetland, of which 0.22 ha comprises several small patches of ecologically significant forest seepage, and 0.22 ha is degraded exotic grass-dominated swamp.
541. The calculated offset for this loss is a 2.4ha area of enhancement and planting to achieve full offset of the losses. The wetland enhancement and planting areas identified equate to some 2.51ha in total and are located in Focus Area 1 (Hunua Quarry and environs) and Focus Area 2 (Meremere Quarry). The wetland enhancement planting area required equates to a ratio of approximately 5 times the impact area of the overall vegetation and a greater offset area has been secured.
542. With full offset provided, no additional compensation is required but it is noted that these areas will also include fencing, removal of stock, and pest plant and pest animal management to ensure success. The restoration wetland areas will occur within restoration forest areas, and thus overtime will provide the forest and shade conditions to reach the wetland type removed. With application of offsetting, and the positive benefits of pest management, any adverse effects on wetland values will no longer be significant and will lead to wetland ecology values being maintained and enhanced overall.

B7.2.3.3 Freshwater Ecology Offset and Compensation

543. The offset for the overall offset of loss and change to waterways is an integrated suite of measures at several locations and includes re-connecting waterways, provision for improved fish passage and planting the riparian margins of waterways. The proposed biodiversity offset for the loss of stream length and habitat comprises a mix of:
- Realignment of a section of Mangapū Tributary to replicate its natural form and function.
 - Planting riparian vegetation along stream margins.

- Re-establishing connectivity and linkages to and between reaches of existing watercourses, including removal of farm ponds.
- Removal of willows from reaches of stream and rehabilitation with native riparian vegetation.

544. The freshwater offset and compensation locations are at:

- Waipokapū Stream tributary.
- Meremere Quarry Stream.
- Mangatawhiri Stream.

545. The offset package will lead to restoration of stream length, riparian planting resulting in enhanced stream habitat, reduction in bank erosion, improved fish passage and connectivity, and the cessation of stock grazing and their access to waterways. As components of the freshwater offset is planned for the same location as components of the vegetation offset, the overall result is, in part, a complete re-vegetation and restoration of a headwater tributary catchment feeding the Mangapū Stream catchment. Increased native planting in headwater catchments will improve the quality of water from the start as it as it descends its catchment.

B7.2.4 Conclusion

546. Overall, a range of actions are proposed to manage the impact of ecological effects of the Project as summarised below:

- Revegetation at a range of offset sites (85.62ha in area), protection of some 16.33ha of existing indigenous bush, and comprehensive pest and weed management (over 100 ha area total) to offset and compensate for the removal of indigenous vegetation, wetland and fauna habitats;
- Fauna survey and salvage/relocation protocols during vegetation clearance to avoid impacts on native birds and bats and to minimise injury and mortality to lizards;
- Realignment of the Mangapū Stream Tributary (541m length) to partially remedy the removal of the existing channel;
- Flow augmentation to remedy effects of dewatering on local watercourses;
- Riparian restoration and enhancement to offset and compensate for the loss of stream length as a result of quarrying, including increased watercourse length created from replacement of farm ponds and other connections;
- Willow removal to enhance aquatic values;
- Wetland enhancement and restoration to offset for the loss of wetland areas as a result of quarrying;
- Aquatic survey and salvage protocols prior to and during stream works to avoid and minimise impacts on native fish and koura.

547. All of these management approaches are built into the proposal. They will be ensured through conditions of consent and particularly through the implementation of the proposed Ecological Management Plan, and as supported by the Lizard Management Plan, the Aquatic Fauna Salvage and Relocation Plan, the Stream Realignment Management Plan and the Pest Management Plan.

548. In relation to terrestrial biodiversity values (vegetation, herpetology, avifauna and bats) it has been assessed by the project ecologists that indigenous biodiversity values will be maintained and enhanced because of the project where offset and compensation measures are applied. Similarly for freshwater ecology, following the application of effects management approaches, it is concluded that wetland and freshwater ecology values will be maintained and enhanced. Overall, the expert opinion is that subject to the implementation of the recommended effects management actions, the ecological effects associated with the Hunua Quarry Development will result in no net loss of terrestrial, wetland and aquatic habitat extent or values, and positive effects that outweigh adverse effects, equating to a net positive gain, in accordance with aquatic and indigenous biodiversity offsetting and compensation principles
549. Effects management is focused on an integrated offset and compensation outcome over three Focus Areas with similar attributes. The ecological experts consider that these focus areas have the potential to become biodiversity hubs in their own right within their respective landscapes. Overall, subject to the implementation of the recommended effects management, the ecological effects associated with the Hunua Quarry Development are considered by the ecological experts to be acceptable and to provide a substantive betterment of integrated ecological values.
550. Subject to the proposed comprehensive ecological management approach, the use of management plans, and the implementation of conditions of consent, it is concluded that adverse effects on ecological values will be no more than minor and will not be significant. All adverse ecological effects can be avoided, remedied, minimised, offset or compensated, through a range of approaches.

B7.3 Archaeological and Heritage Values

B7.3.1 Introduction

551. The Archaeological Effects Assessment in **Appendix B12.4.2** sets out the history of the area. A search was undertaken of the New Zealand Archaeological Association's (NZAA) site record database (ArchSite), the AUP Schedules and the Heritage New Zealand Pouhere Taonga (Heritage NZ) New Zealand Heritage List/Rārangi Kōrero to determine whether any archaeological sites had been recorded on or in the immediate vicinity of the Hunua Quarry. Literature and archaeological reports relevant to the area were consulted and early survey plans and aerial photographs were checked to identify past land use in the area. Consultation has also been undertaken with Heritage New Zealand.
552. A visit to the site was undertaken on 21 November 2025 followed by a survey of the southern area in the vicinity of the Mangapū Stream, which was carried out on 25 November 2025, although for safety reasons some areas could not be entered due to the steep slopes and heavy vegetation. Particular attention was paid to the area around the stream for evidence of Māori or early European settlement remains. Photographs were taken to record the topography and features of interest within the properties and their surrounds.

B7.3.2 Archaeological Effects

553. The desk-based research did not reveal any archaeological or historic heritage sites recorded within the Quarry Development Area. One archaeological site has been recorded on a neighbouring property approximately 750m to the northwest of the proposed quarry development. This is pā site

R12/663, which is described as being located on a north/south aligned ridge spur with features identified including a ditch and scarp defence and at least one pit and terrace. The site is also recorded as HI:13625 on the Auckland Council Tūtangi Ora database. There are also 10 additional recorded archaeological sites in the general area outside of the Quarry Development Area. None of the recorded sites will be affected by the Proposal.

- 554. The site visit and the survey of the southern area in the vicinity of the Mangapū Stream also did not reveal archaeological or historic heritage sites.
- 555. However, it remains a possibility that unrecorded archaeological sites could be uncovered during the enabling works and removal of overburden and as a precaution, Winstone is seeking an archaeological authority for Stages 1-3 as part of this application. This will contain conditions that require archaeological monitoring during the removal of vegetation and preliminary earthworks in the vicinity of the waterways in the southern part of the Site (Stage 1). The works will be subject to a certified Archaeological Management Plan, which will contain procedures for recording any archaeological evidence before it is modified or destroyed. This approach is an effective and pragmatic method of managing the accidental discovery of archaeological remains. During later stages, vegetation clearance and earthworks will be subject to a general condition relating to accidental discovery given the low likelihood of unrecorded archaeological sites, based on the steep terrain, difficult access, and forested nature of the area.

B7.3.3 Proposed Mitigation

- 556. The archaeological assessment has determined that no archaeological sites will be affected by the Project, and although unlikely, it is considered possible that unidentified subsurface archaeological remains associated with Māori occupation and settlement could be discovered as part of the development, particularly in the vicinity of the Mangapū Stream and tributary.
- 557. An Archaeological Management Plan (AMP) will be prepared as part of the mitigation approach and is intended to reduce the scale and significance of potential adverse impacts on archaeological remains, particularly with regards to works in and adjoining the Mangapū Stream and tributary. A draft AMP included in **Appendix B12.8.2**. It outlines the procedures to be followed during archaeological monitoring of earthworks and for recording any archaeological evidence before it is modified or destroyed. It also provides protocols for managing the exposure of archaeological remains including koiwi tangata (human remains) or taonga tuturu (Māori artefacts).
- 558. The archaeological authority will not cover Stages 4-8, but these works will either be managed under the Accidental Discovery rule (E12.6.1) in the AUP or an archaeological authority will be sought. A condition of consent requires compliance with Rule E12.6.1 in the absence of an archaeological authority. Either approach is appropriate to manage the impact of future works on archaeological values, given the low likelihood of archaeological sites being uncovered.

B7.3.4 Conclusion

- 559. In conclusion, any adverse impacts resulting from the Project on archaeological remains is low. Any impacts during Stages 1-3 can be effectively managed through an archaeological authority and Archaeological Management Plan. Prior to commencing Stages 4-8 another archaeological authority can be sought or reliance placed on the Accidental Discovery rule (E12.6.1) of the AUP. Overall, adverse impacts on archaeological values are considered to be less than minor (and not significant) and will be appropriately mitigated under the proposed conditions.

B7.4 Transportation Effects

560. An assessment of the transportation effects of the Project has been undertaken by Commute Transportation Consultants (“Commute”). The report is authored by Hunter Abernethy, a qualified traffic engineer and peer reviewed and approved by Leo Hills an experienced, qualified and Chartered Professional Engineer (CPEng), and a Chartered Member of Engineering New Zealand (CMEngNZ). A copy of this report is included in **Appendix B12.4.14** Transportation Assessment (Transportation Assessment).
561. Hunua Quarry is located on Hunua Road, which comprises one vehicle lane in each direction, a road reserve of approximately 9m and a sealed width of 7.5m. This part of the road has a posted speed limit of 80km/h. Access to the Hunua Quarry is, and will continue to be, from a single existing access which connects the Site to the wider transport network. The existing access provides for two-way truck movements.
562. While this part of Hunua Road is not classified as an Arterial Road, the area west of the site entrance is part of the Auckland Strategic Freight Network. As shown in Figure 10 above, Hunua Road through to Settlement Road as well as Settlement Road and Beach Road through to SH1 (southern motorway) and Dominion Road is classified as Freight Roads. All these roads have been specifically designed and progressively upgraded to cater for large truck and trailers.

B7.4.1 Traffic Effects

563. The Hunua Quarry Development proposes to increase annual production from approximately 2,943,052 tonnes to a peak of approximately 5,400,000 tonnes (to meet market demand). Based on Winstone’s 2023 survey data, this uplift is expected to generate an approximate 111% increase in average daily truck movements to and from the Site. This corresponds to the following increases in peak hour truck movements:
- **AM peak:** 161 truck movements (an increase of 86), comprising approximately 43 entries and 43 exits; and
 - **PM peak:** 135 truck movements (an increase of 72), comprising approximately 36 entries and 36 exits.
564. Staff (non-truck) movements are expected to remain broadly consistent with 2023 levels. Although staffing may increase by around 10%, this is anticipated to be offset by greater automation over time, resulting in near static staff related trip numbers.
565. The three key intersections—Hunua Road / Settlement Road, Hunua Road / Boundary Road, and Hunua Road / Dominion Road—have been assessed to determine their ability to accommodate the increased truck volumes associated with the proposal. As outlined in Section 5 of the Commute report, all three intersections have sufficient capacity to manage the projected increase in truck movements. In particular, impacts on the operation of the Hunua Road / Settlement Road intersection are considered negligible. As such, the intersection will continue to operate acceptably and can accommodate the additional truck movements from a transport engineering perspective.

B7.4.2 Safety Effects

566. An assessment of the traffic safety record of the site and surrounding area has been undertaken, for the five-year period between 2021 and 2025, and includes any crashes entered into the system for 2026. The search included all reported crashes on Hunua Road between the site and Dominion Road. A total of 15 crashes were reported within the search criteria. These are summarised in section 2.6 of the Commute report. No significant safety concerns or trends were identified relating to the Quarry entrance or quarry trucks.

B7.4.3 Site Access

567. The Commute report, however, highlights that due to the right turning entry to the Site and the high proportion of heavy vehicle movements, there is a need to upgrade the existing quarry access arrangement. The analysis shows that, given the majority of right turn movements are large truck and trailers, it is considered that a full right turn bay is required. A draft right turn bay drawing has been prepared (as shown in Appendix D of the Commute report) which demonstrates there is adequate road reserve available for the widening required to accommodate this turning bay. The recommended upgrade will ensure the site access accords with the Austroads "Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management".
568. In conjunction with the right turn bay, a series of other improvements are proposed to the site access including a squaring up of the access to Hunua Road, provision of 40m stacking distance for the right turn bay (i.e. two truck lengths); installation of a central solid splitter island at the entry to ensure trucks do not cut across the entry; sealing of at least the first 50m of access into the site; installation of an afterhours gate set back some 50m from the entrance and retention of the existing "trucks crossing" signage.
569. It is concluded that the Project, despite almost doubling production at the quarry, will result in a net positive gain for the transport network due to the recommended right turn bay upgrades, and additionally the increase in truck volumes will not adversely impact on the safe or operation of the wider transport network.

B7.4.4 Proposed Mitigation

570. As outlined above; it is proposed to undertake several improvements to the site access to accommodate the increased truck volumes, thus ensuring the continued safe and efficient operation of Hunua Road. These improvement works have been included in the proposed conditions of consent.

B7.4.5 Conclusion

571. Despite almost doubling production at the quarry, the transport assessment concludes that the Project will result in a net positive gain for the transport network. The upgrades to the existing site access to include a full right turn bay on Hunua Road will ensure that, despite the increase in truck volumes, the Project will not adversely impact on the safe or operation of the wider transport network.
572. From the assessment undertaken by Commute, the Hunua Quarry expansion will have minimal traffic effects on the function, capacity and safety of the surrounding transport network. Apart from

the vehicle crossing width (which Commute nevertheless consider appropriate), the proposal meets the relevant Auckland wide transport requirements of the AUP.

573. Overall, and assessed against the relevant planning framework, the potential traffic effects of the Hunua Quarry Development will result in less than minor effects (no significant impacts) on the function, capacity and safety of the surrounding transport network. Once the upgrades proposed to the site access (provision of the recommended right turning bay) are considered, the overall outcome is considered to result in net positive gain (positive effects) in terms of safety when compared to the status quo.

B7.5 Dust Effects

574. The Air Quality Assessment in **Appendix B12.4.1** evaluates the potential for existing quarrying activities and the proposed development to generate dust, and any impacts on sensitive receivers in the surrounding environment and recommends dust mitigation measures.
575. The assessment methodology employed by PDP is set out in Section 3 of the Air Quality Assessment. In brief, the assessment has been undertaken in accordance with the Ministry for the Environment (MfE) Good Practice Guide for Assessing and Managing Dust (GPG Dust)) and adopted the FIDOL assessment tool to undertake a qualitative assessment to determine the dust effects from the Project. The FIDOL factors are frequency, intensity, duration, offensiveness, and location.
576. The potential for off-site effects of Respirable Crystalline Silica (RCS) has also been assessed, by undertaking a risk review assessment and comparing its findings to the US EPA threshold exposure of approximately 1 milligram per cubic metre (mg/m^3) years, below which there is no stated increase in the risk of developing silicosis. The assessment has also considered the California OEHHA chronic REL concentration limit of $3 \mu\text{g}/\text{m}^3$ for RCS. This REL is used for assessment against long-term exposure of RCS, which the OEHHA defines as being anywhere between 1 year and a lifetime. The Victoria Environmental Protection Agency has also adopted $3 \mu\text{g}/\text{m}^3$ as an annual average assessment criterion for RCS as $\text{PM}_{2.5}$. The assessment has used $3 \mu\text{g}/\text{m}^3$ concentration as an annual assessment criteria.
577. Due to the size of the Site, the assessment separates it into three primary areas:
- Processing Plant Area;
 - Overburden Disposal Area (OBDA) and Managed Fill (MF) Area; and,
 - The Project.
578. However, a cumulative effects assessment of activities in all three areas has also been undertaken as a global air discharge consent is being sought, and the activities will be undertaken simultaneously and in proximity to each other.
579. The area surrounding the Site is generally of low to moderate sensitivity (rural zoned land) but there are several rural-residential properties that are of moderate to high sensitivity (as per GPG Dust). These are identified in Table 27 below and their location is shown on Figure 22 below:

Table 27: Summary of Nearby Sensitive Receptors

Receptor	Address	General Direction Relative to Dust Source	Approximate Distance from Dust Source (m)
R1 ¹	369 Hunua Road	Northwest	530 ²
R2 ¹	411 Hunua Road		390 ²
R3 ¹	486 Hunua Road		390 ²
R4	910 Hunua Road	East	490 ³
R5	969 Hunua Road		690 ³
R6	1001 Hunua Road		890 ⁴
R7 ¹	193 Middleton Road		130 ⁴
R8	167 Middleton Road		245 ⁴
R9	170 Middleton Road		340 ⁴
R10 ¹	161 Middleton Road	Southeast	250 ⁴
R11 ¹	165 Middleton Road		100 ⁴
R12	610 Ponga Road	South to southwest	320 ⁴
R13	115 Judge Richardson Drive		135 ⁴
R14	181 Judge Richardson Drive		200 ⁴
R15	119 Judge Richardson Drive		80 ⁴
R16	191 Judge Richardson Drive	Southwest	200 ⁴
R17	154 Judge Richardson Drive		400 ⁴
R18	144 Judge Richardson Drive		355 ⁴
R19	80 Judge Richardson Drive	West	305 ⁴
Notes: 1. Receptor located on Fletcher Infrastructure and Construction Limited owned land. 2. Distance from general processing and stockpiling area. 3. Distance from OBDA/managed fill area. 4. Distance from Stage 4 extent the SHP expansion.			

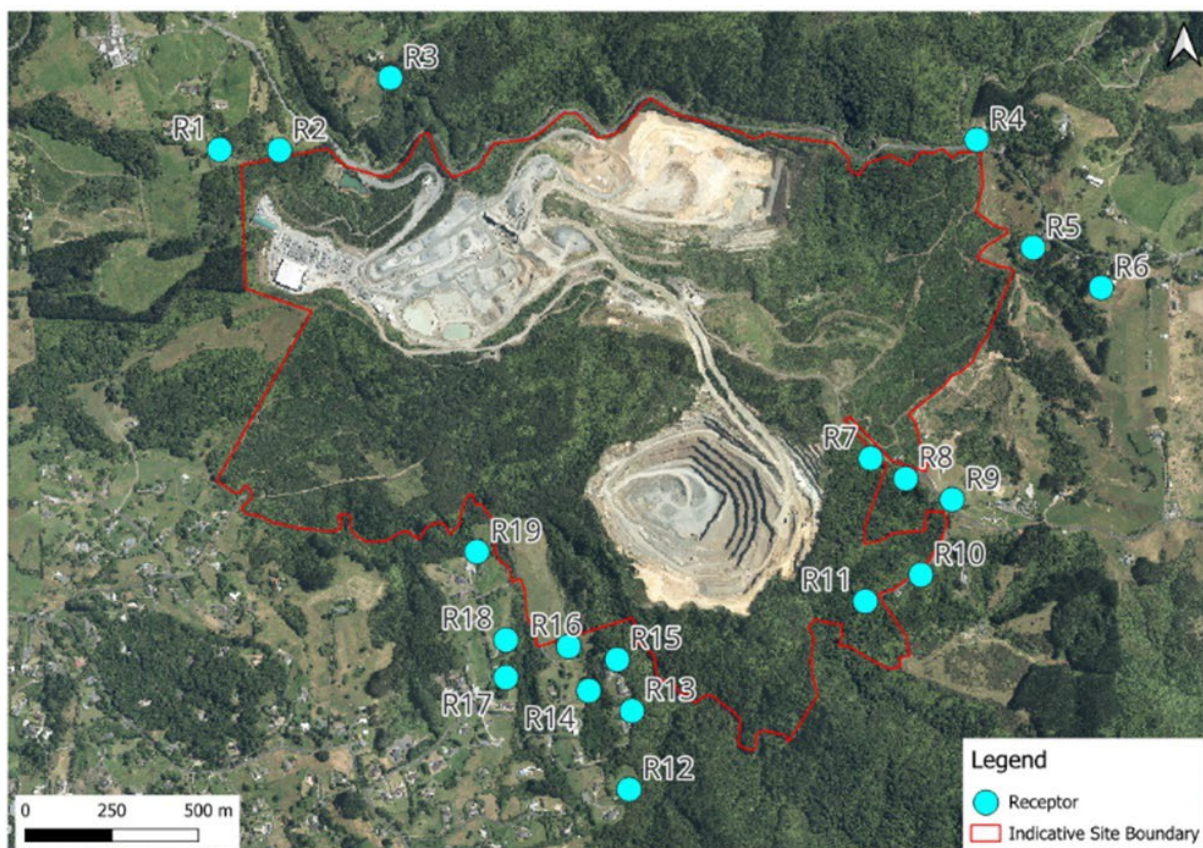


Figure 25: Moderate-high sensitive receivers

580. In preparing this assessment of any potential dust effects arising from the proposed development of the Hunua Quarry on the environment and people, have been disregarded on sites which have provided written approval to the application (Listed in section B1.6).

B7.5.1 Effects on Sensitive Receivers (Offensiveness)

581. The offensiveness of dust is correlated with the type of material that makes up the dust, with different materials having different levels of offensiveness. Given that dust generated from all three areas will be similar, the offensiveness of dust from all three areas has been addressed below.

582. Greywacke rock produces dust that is light to mid-grey in colour and is highly unlikely to result in dark deposits. Dust from soil/overburden will be characteristic of dust that generally occurs in a rural environment. Likewise, dust from managed fill material (generally inert natural materials including clays and soils), and fines will essentially be the same colour as the overburden and not uncommon in rural environments. Concrete dust is likely to be lighter in colour and may have greater potential to be considered offensive if detected off-site. However, mitigation measures and controls will be implemented to minimise the risk of dust being discharged to air and in combination with the separation distances to sensitive receptors, any dust discharged from the Site will be of a low offensiveness and not result in significant adverse effects.

B7.5.2 Processing Plant Area Effects

583. The scale and nature of activities within the processing plant area are not proposed to change as a result of this Project, with the majority being undertaken within buildings. Furthermore, discharges to air are already consented under Permit 34130 (global permit) and are subject to existing successful mitigation and management measures.
584. The TSP monitoring undertaken as per the Site's current consent and DMP shows that generally low concentrations of dust have been recorded near to the site entrance. The closest receptors (R1: 369 Hunua Road, R2: 411 Hunua Road and R3: 486 Hunua Road) are rural residential properties, of which 369 and 486 Hunua Road have provided their written approval. They are separated from the processing plant by a minimum of 390 metres, and consequently, all sensitive receptors are located further away than the monitor at the Main Gate, therefore the intensity of any dust experienced at them will be lower than any recorded by the monitor.
585. Furthermore, due to the dust mitigation and control measures that are, and will continue to be adopted (as set out in Section 7.5.9 below), there will be no change to the very infrequent dust discharges that currently arise from this activity. If an exceedance of the TSP trigger level occurs, site staff will be alerted, and the discharge will likely be limited to a period of approximately 1 to 2 hours at any one time: taking into consideration the time required to recognise that dust emissions are occurring, identify the source, and implement any additional mitigation measures that may be required. Therefore, there is a low likelihood of offensive or objectionable dust effects being experienced off-site. Consequently, the operation of the processing plant area will not result in significant adverse effects.

B7.5.3 Overburden Disposal and Managed Fill Area Effects

586. This Project will not result in any changes to the operation of the OBDA and Managed Fill Area (MFA) including the mitigation measures and controls that are employed to minimise the discharge of dust.
587. Overall, nuisance effects will be infrequently experienced off-site due to the significant separation distances from sensitive receptors (the nearest being 390 metres away) allowing dust particles to settle before reaching adjoining rural-residential properties and the proactive management of dust, including visual monitoring. It is noted that Hunua Road runs near the OBDA and MFA, and dust emissions can cause adverse effects, predominantly from soiling of vehicles. This could result in significant adverse effects on the safe and efficient operation of Hunua Road. However, the mitigation measures both currently undertaken in this area and proposed to continue will control dust to a level where there is a low likelihood of offensive or objectionable dust effects being experienced off-site. Consequently, these aspects of the proposal will not result in significant adverse effects.

B7.5.4 Symonds Hill Pit Expansion – Up to Stage 4 Effects

588. For clarity, the potential dust generating activities undertaken within the Project area include overburden removal and transportation to OBDA and MFA, resource extraction and transportation to the processing plant area. Monitoring data shows consistently low TSP concentrations have been recorded since quarrying activities commenced at Symonds Hill Pit and indicates that nearby receptors have not historically experienced dust events of significant intensities, and consequently that the dust mitigation measures set out in the current, certified DMP and conditions of consent are effective.

589. However, overburden removal during Stages 1-4 is proposed to be undertaken closer to sensitive receptors, with 119 Judge Richardson Drive (R15) being defined as 'close', and 115 (R13), 181 (R14), and 191 (R16) Judge Richardson Drive being an 'intermediate' distance from the Project. As such, there is an increased risk of these receptors being adversely impacted by dust generated by the Project, noting that 115 and 119 have provided their written approval to the Project. All other identified receptors are classified as being 'distant'.
590. However, there will be a buffer of approximately 80 m of vegetation between the Project and receptors R13 to R16. and the Symonds Hill and Ponga Road dust monitors are well located to alert site staff if dust concentrations approach a level which indicates that there may be adverse effects being experienced at a nearby receptor, and dust mitigation measures and controls will be implemented.
591. It is concluded that there is a low likelihood of offensive or objectionable dust effects being experienced off-site, as overburden removal and other dust generating activities will be subject to mitigation measures that have, and will continue to, control dust emissions. As such, the adverse effects arising from Stages 1 to 4 in relation to the generation of dust will not be significant.

B7.5.5 Symonds Hill Pit Expansion – Stage 5 to 8 Effects

592. Stages 5 to 8 will result in the removal of large volumes of overburden especially during Stages 7 and 8 and the deposition of overburden into the Symonds Hill Pit. Stage 7 will result in the pit being closer to Receptors R8 to R10 (167, 170 and 161 Middleton Road respectively), and slightly closer to the receptors to the southwest of the Site. Written approval has been given by 161 and 167 Middleton Road. The nearby receptors are relatively frequently downwind of the Project during strong winds, but this does not necessarily correlate with these receptors frequently experiencing nuisance dust.
593. The dust monitors at Symonds Hill and Ponga Road are well located to alert staff to rising TSP levels, and prior to Stage 7, the Symonds Hill monitor will be relocated to enable extraction activities to occur and dust to continue to be effectively monitored.

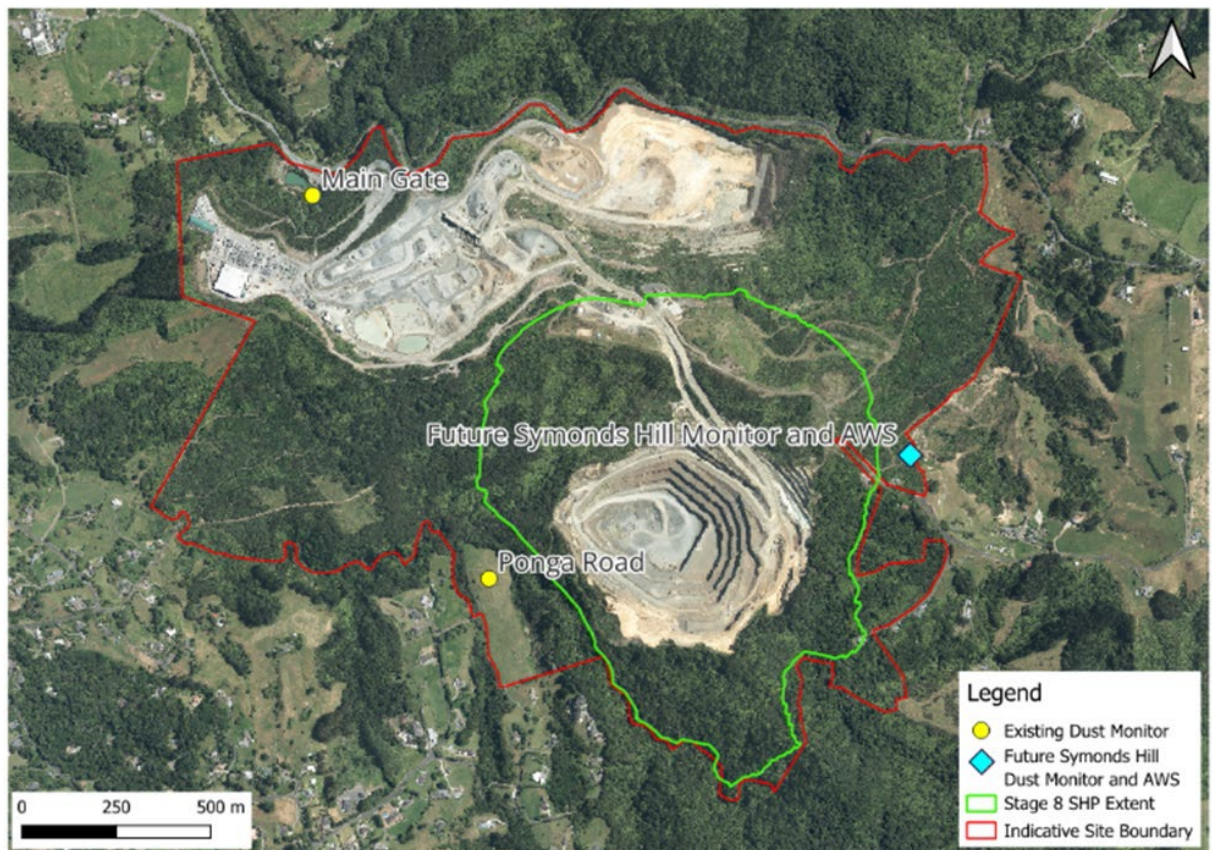


Figure 26: Proposed Indicative Dust Monitor and AWS Locations

594. Proactive monitoring and mitigation measures will be implemented, with updated conditions and a refreshed Dust Management Plan (draft provided) so that if dust is experienced off-site, it will be at a low intensity and for a short duration. Overall, there is a low likelihood of offensive or objectionable dust effects being experienced off-site. As such, the adverse effects arising from Stages 4 to 8 in relation to the generation of dust will not be significant.

B7.5.6 Cumulative Effects

595. Due to the size of the Site, there is the potential for nearby receptors to be downwind of multiple dust sources at the same time. However, all nearby receptors are located at least 600 m (a very effective significant separation distance) from a secondary dust source. Consequently, there is a very low potential for cumulative effects to occur, unless extreme weather conditions are present with wind speeds greater than 20 m/s (which occur very only infrequently).

B7.5.7 Health Effects

596. Health effects associated with the discharge of dust to air relate particularly to small airborne particles, often referred to as PM₁₀ and smaller. As Hunua is an established quarry, PDP undertook a short-term monitoring study using the methodology set out in Section 3.2 of the Air Quality Assessment which in summary shows no exceedances of the NES-AQ of 50 µg/m³ 24-hour average. The recorded 24-hour average value at Hunua was 14 µg/m³, with the maximum being 23 µg/m³, being approximately 25% and 50% of the NES-AQ recommended 24-hour average limits for PM₁₀.

respectively. This correlates with findings for other quarries in New Zealand and is comparable with estimated concentrations developed for Waka Kotahi. Given this, and that the measurements cover the period when dust effects are generally greatest due to the warmer temperatures, PDP is comfortable that this monitoring is representative of the annual PM₁₀ in this location.

597. Overall, no concentrations were recorded that suggest the potential for human health to be affected, and as the existing and proposed mitigation measures will continue to be implemented throughout the Project, low off-site PM₁₀ concentrations will be effectively maintained. It is considered that PM₁₀ concentrations as a result of the quarry operations will be at a level that will not result in adverse health effects at nearby sensitive locations and on this basis there will be no significant effects on the health of people.

B7.5.8 Respirable Crystalline Silica Effects

598. PDP undertook an analysis of Winstone's on-site workplace silica monitoring, a conservative assessment of the TSP monitoring, reviewed specific RCS sampling near quarries in Christchurch, reviewed information prepared by Texas Commission on Environmental Quality, and undertook a risk assessment using a methodology developed by the US EPA. From the findings, PDP concludes that there is an extremely low potential for any off-site health effects from RCS.
599. However, if increased RCS concentrations did occur, this could result in significant adverse health effects. Therefore, it is proposed to undertake at least three months of baseline monitoring to establish the existing RCS concentrations. Once the Project has commenced, a further 12 months of monitoring is proposed to determine if the Project is having an effect on RCS concentrations around the Site, and against OEHHA annual average limit of 3 µg/m³. If the annual average limit is exceeded at a monitoring location, then monthly monitoring will continue at that location until such time that the annual average limit is met.
600. Based on the assessment of extremely low potential for off-site health effects from RCS and the monitoring proposed, it is considered that significant adverse effects on human health relating to RCS will not arise as a result of the Project.

B7.5.9 Proposed Mitigation

601. The main effects of the Project relate to the generation of dust and impacts on surrounding sensitive receivers. The Air Quality Assessment determines the Project will not result in significant adverse impacts on sensitive receivers as it is proposed to continue implementing existing mitigation measures and any others that become available during the life of the quarry.
602. The mitigation measures encompass wind and dust monitoring, such that the 24-hour average TSP concentrations measured at Symonds Hill and Ponga Road dust monitors must not exceed 80 µg/m³, and 100 µg/m³ at the main gate dust monitor. It is also proposed to implement a range of dust suppression measures, not undertake certain activities during strong winds, stabilise and revegetate exposed land, undertake processing activities within buildings and manage the height of stockpiles.
603. These measures will be included in an Air Quality Management Plan to be certified by Auckland Council, as required by a condition of consent. A draft version of the proposed dust management plan is included with the application in **Appendix B12.8.1**, this builds on Winstone's current experience managing dust emissions at Hunua Quarry and includes updates to reflect changes in best practice over time.

B7.5.10 Conclusion

604. In conclusion, there is the potential for unmitigated dust discharges to cause off-site nuisance impacts, especially during the relatively large-scale overburden stripping required during Stages 4 and 7. However, these potential adverse impacts will be effectively managed through the implementation of mitigation measures and controls that have already proven to be effective at this Site. This includes a very low likelihood of either PM₁₀ or RCS being present at concentrations that could cause health effects.
605. Overall, the adverse impacts of dust on the environment, including on sensitive receivers, are considered to be no more than minor and not significant.

B7.6 Landscape, Visual and Natural Character Effects

606. A Landscape Effects Assessment (LEA) has been undertaken by Amanda Anthony and John Goodwin; and peer reviewed by Rhys Girvan, all qualified and registered landscape architects at Boffa Miskell Limited. The LEA evaluates the landscape, natural character, and visual effects associated with the Project. A copy of this report is included in **Appendix B12.4.10**.
607. The Site is located within a rural hill country landscape characterised by steep greywacke landforms, indigenous vegetation, rural production activities, and existing quarrying. A small portion (6ha) of the quarry development area extends into the Ponga Road Outstanding Natural Landscape (ONL), and approximately 44.46ha of indigenous vegetation (most of which is in areas of Significant Ecological Areas (SEA)) will be removed across the life of the quarry.
- The Ararimu Greywacke Dominant Hill Country is characterised by productive working landscapes and areas of isolated indigenous vegetation. Landscape management issues relate to ongoing farm management, the management of open pastoral landscapes and the management of future settlement patterns and development.
 - Minimum lot rural residential subdivision on moderately sloping inland valley production valley land – loss of productive land capacity.
 - Enhancement and protection of larger patches of indigenous forest and shrubland vegetation.
 - Strengthening and enhancement of natural landscape patterns throughout coarse grained production landscapes.
 - Quarrying activities on western hill slopes.
 - Riparian management of upper catchment valley areas
608. The local landscape context surrounding the existing Hunua Quarry is characterised by established rural residential subdivisions, rural land uses, and extensive areas of indigenous vegetation, all of which contribute to a distinct rural landscape character and amenity. The quarry itself is a long established and visually prominent feature within this setting, with its benches, access roads, and modified landform appearing intermittently between folds of terrain.
609. The broader context includes varied rural residential and lifestyle development. To the north, Crown-owned indigenous forest used by the New Zealand Defence Force forms a large contiguous vegetated backdrop, while rural lifestyle properties line Middleton Road to the east. South of the quarry, steep ridges and incised stream gullies within the ONL create a more enclosed landscape. To the southwest, lifestyle properties along the foothills of Ponga Road—often positioned on ridgelines—gain partial, sometimes filtered views of the quarry. To the west, the rural environment

transitions toward urban influence, with emerging residential development around Drury and existing suburban and industrial areas in Red Hills and Papakura.

B7.6.1 Landscape Effects

610. The Project results in substantial long-term changes to landform and vegetation patterns. The key landscape considerations are:

- **Mangapū Stream Tributary Realignment.** Around 1200m of the existing tributary will be removed and replaced with a new 570 m channel, including a temporary bridge within the ONL to enable construction.
- **Indigenous Vegetation Clearance.** Approximately 44.46 ha of native vegetation within the ONL and SEAs will be progressively removed across all quarry stages, as detailed in Table 28.
- **Landform Modification within the ONL.** Several ridges and gully systems inside the ONL will be removed or altered—most significantly during Stage 1.
- **Western Haul Road Construction.** The new haul road will require earthworks, culverts, and batter stabilisation during Stage 2, then be realigned westward in Stage 7 as quarrying progresses.
- **Overburden Disposal Areas (OBDAs).** Expanded OBDA capacity will accommodate 24 million m³ of overburden, with future landform contouring and native planting to support long-term rehabilitation and natural regeneration.

Table 28: Loss of vegetation at each stage of the Project (Source: **Appendix B12.4.10 – Landscape Effects Assessment**)

Vegetation Types	Stages								
	1	2	3	4	5	6	7	8	Total (ha)
Veg 1: Tree-fernland with nīkau, emergent pūriri & broadleaf scrub	1.46	0.54	0.50	0.23			4.60	2.81	10.14
Veg 2: Kānuka forest with emergent broadleaves & podocarps	0.79	0.95	0.06	0.67			5.19	0.72	8.38
Veg 3: Tawa-taraire forest with mature kānuka	3.73		3.06	3.35			4.73	0.06	14.93
Veg 4: Native planting / weedy scrub mix	0.66	0.25					1.85	5.95	8.71
Veg 5: Kānuka / manuka scrub	0.58	0.07	0.15				0.38	0.86	2.04
Veg 6: Kauri, podocarp, broadleaf forest		0.02					0.24		0.26
Veg 7: Exotic scrub							0.15	4.0	4.15
Total (ha)	7.22	1.83	3.77	4.25			17.14	14.4	48.61

611. The Project results in long-term changes to landform and vegetation patterns within the ONL and Significant Ecological Areas. At the local scale, physical landscape effects are assessed as high (adverse) during operation before mitigation, reducing to moderate to moderate-high (adverse) at completion after mitigation. These effects arise from extensive landform excavation associated with the deepening of the quarry pit to approximately –50m RL, the removal of ridges and hillslopes within

the ONL, realignment of the Mangapū Stream Tributary and the loss of 44.46ha of indigenous vegetation (most of which is in areas of SEAs), including 6ha located within the ONL.

612. At the broader landscape management area scale, the physical changes occur in the context of the established and long standing Hunua Quarry operation, which will be progressively staged and supported with expanded areas of native revegetation facilitated through rehabilitation (of retired areas) and native revegetation across the offset sites. As such, physical landscape effects are low (adverse) during operation before mitigation, reducing to very low (adverse) after mitigation.
613. The landscape character effects at the local level are assessed as moderate-high (adverse) during operation because until the later stages of the Project and rehabilitation, the overriding character within the quarry development area will remain dominated by large-scale terraced landforms rather than vegetated, steep hillslopes. These effects reduce to moderate (adverse) at completion (after mitigation).
614. At the broader landscape level, landscape character effects are assessed as low (adverse) during operation as the quarry will be read as consistent with the existing pattern of diverse and interspersed land uses and land covers that characterise the hill country slopes, particularly when viewed from western vantage points. Effects will reduce to very low (adverse) at completion (after mitigation)
615. Localised effects on the ONL are moderate (adverse) during operation before mitigation, reducing to low–moderate (adverse) at completion (after mitigation) as the majority of the ONL’s defining values, including its elevated ridges, extensive indigenous forest, and strongly articulated landform, will remain intact. At the broader ONL level, the effects are low-moderate (adverse) during operation as effects are more contained, as the elevated forested ridges, upper slopes, and wider natural landform sequence remain largely unaffected. Effects reduce to low (adverse) at completion after mitigation.

B7.6.2 Natural Character Effects

616. The natural character of the Mangapū Stream and its tributaries, including associated wetlands and margins, is identified in as a matter of national importance under the RMA (s6(a)). The section of tributary affected by the proposed realignment currently exhibits high to very high natural character, supported by intact indigenous vegetation, diverse and natural channel morphology, wetlands, and minimal human modification. This reach also sits partly within an ONL, reinforcing its sensitivity and high naturalness values.
617. The proposal requires removal of approximately 941 m of the existing tributary and construction of a 570 m engineered realignment. The works involve substantial earthworks, vegetation clearance (including riparian and terrestrial indigenous species), excavation of a new channel corridor, and installation of a temporary bridge. These activities will result in the complete loss of natural form and active processes within the diverted reach and will introduce an initially engineered channel character.
618. As a result, natural character effects on the tributary are assessed as high (adverse) initially, reducing over time as vegetation establishes and the realigned channel naturalises. Longterm effects are expected to reduce to moderate (adverse) at the tributary scale. At the broader Mangapū Stream scale, effects are assessed as low-moderate (adverse) initially, reducing to very low (adverse) in the long term.

B7.6.3 Visual Effects

619. Visual amenity effects have been assessed with reference to the nature of the quarry expansion, its visibility within the surrounding rural hillcountry landscape, and the sensitivity of different viewing audiences. These effects are influenced by viewing distance, elevation, intervening landform and vegetation, and the degree to which the quarry is already an established component of the landscape. A 3-dimensional digital model and a suite of visual simulations from representative public viewpoints were used to inform the assessment, with public road-based locations forming a key part of the analysis. Private viewing groups were also assessed, with detailed analysis contained in Appendix 3 of the LEA report.
620. Overall, the quarry will generate a range of visual effects that vary across the wider environment depending on proximity, orientation, and the stage of quarry development. From most public viewing locations, particularly more distant roads, the quarry will be either not visible or will appear as a small, contained element within a predominantly vegetated landscape, with effects typically reducing further as rehabilitation planting matures. More noticeable changes will occur from closer or elevated public roads—such as sections of Middleton Road, Ponga Road, and Judge Richardson Drive—particularly during Stages 7 and 8 when quarry faces widen, ridges are lowered, and benches become more apparent. Nonetheless, even these changes occur progressively and within a landscape where quarrying is already an established activity.
621. Public viewing locations experience effects ranging from low to moderate adverse during operation, reducing to very low to low adverse once mitigation and rehabilitation planting is established. Table 29 below collates a summary of the visual effects from public locations. It identifies the most elevated and closest roads as experiencing the highest effects, while distant local roads experience low to very low adverse effects.

Table 29: Summary of Visual Effects from Public Location (Source: **Appendix B12.4.10 – Landscape Effects Assessment**)

Public Location	During Operation (before mitigation)	At completion (after mitigation)
Hunua Road	Low (adverse)	Very Low (adverse)
Jones Road	Low (adverse)	Very Low (adverse)
Middleton Road	Low-moderate (adverse)	Low (adverse)
Ponga Road	Low-moderate (adverse)	Low (adverse)
Judge Richardson Drive	Moderate (adverse)	Low-moderate (adverse)
Other Nearby Local Roads (Coal Mine Road, Kauri View Road)	Low-moderate (adverse)	Low (adverse)
Distant Local Roads	Low (adverse)	Very Low (adverse)

622. For private properties, effects vary depending on elevation, proximity, and orientation. Some southern and western viewing groups (S1, S2, W1, W2) are assessed as experiencing moderate–high adverse effects before mitigation. On-site mitigation is limited in its ability to screen these views; therefore, an offsite planting programme is recommended to provide more effective screening where feasible at affected properties-. Progressive rehabilitation of quarry faces will further soften exposed landforms over time and reestablish vegetated backdrops, reducing visual contrast and improving

landscape integration. By completion, most private viewpoints experience reductions in effects to low, low--moderate-, or neutral levels as shown in Table 30.

Table 30: Summary of Visual Effects from Private Locations (Source: **Appendix B12.4.10 – Landscape Effects Assessment**)

Viewing Group	During Operation (before mitigation)	At completion (after mitigation)
N1	Neutral	Neutral
N2	Low (adverse)	Very Low (adverse) to Neutral
N3	Very Low (adverse)	Neutral
N4	Very Low (adverse)	Neutral
E1	Low-Moderate (adverse)	Low (adverse)
E2	Low (adverse)	Very Low (adverse)
E3	N/A	N/A
S1	Moderate-High (adverse) to Moderate (adverse) or lower	Moderate (adverse) to Low-Moderate (adverse) or lower
S2	Moderate-High (adverse) to Moderate (adverse) or lower	Moderate (adverse) to Low-Moderate (adverse) or lower
S3	Low (adverse)	Very Low (adverse)
W1	Moderate-High (adverse) to Moderate (adverse) or lower	Moderate (adverse) to Low-Moderate (adverse) or lower
W2	Moderate-High (adverse) to Moderate (adverse) or lower	Moderate (adverse) to Low-Moderate (adverse) or lower
W3	Low-Moderate (adverse)	Low (adverse)

B7.6.4 Landscape Mitigation and Rehabilitation

623. The following mitigation and rehabilitation measures are proposed to address the landscape, natural character, and visual effects identified that arise from the Hunua Quarry development. These measures encompass both off-site and on-site responses, including native mitigation planting, landscape rehabilitation, and enhancements to the realigned Mangapū Stream Tributary corridor. These measures form part of the mitigation approach and are intended to reduce the scale and significance of the potential effects of the development. The following measures are proposed:

- Staged riparian and native stream corridor planting along the realigned Mangapū Stream Tributary;
- Native revegetation across the offset sites in advance of vegetation clearing within the quarry development area;
- Progressive bench and OBDA rehabilitation under the Landscape Rehabilitation Strategy and Management Plan; and
- Off-site mitigation planting offered to residents who are assessed as experiencing potential moderate-high (or above) adverse visual effects.

624. These measures collectively will reduce long-term landscape, natural character, and visual effects, supporting eventual reintegration of modified landforms and vegetation patterns into the surrounding rural hill-country setting.

B7.6.5 Conclusion

625. In conclusion, the proposed extension of the Hunua Quarry development into the working rural landscape will generate substantial and long-term landscape, natural character, and visual effects, particularly relating to landform modification, the removal of 44.46ha of indigenous vegetation, and the realignment of the Mangapū Stream Tributary. These effects are largely confined to the site and its immediate surroundings.
626. Localised adverse effects will occur on the Ponga Road ONL, but the majority of the ONL's defining values, including its elevated ridges, extensive indigenous forest, and strongly articulated landform will remain intact. Proposed revegetation and rehabilitation measures will progressively restore vegetative patterns and soften engineered landforms, contributing to long term landscape cohesion and ecological connectivity. Therefore the Project will not be inappropriate in the context of the identified ONL.
627. Natural character effects on the Mangapū Stream Tributary will initially be high due to realignment of a highly natural stream system. Through careful channel design, riparian planting, and long-term management, the realigned tributary is expected to regain moderate levels of natural character over time while maintaining the overall catchment-scale naturalness.
628. Visual effects vary by location and viewer sensitivity, and over time. Elevated properties to the south and west will experience the most direct visibility, while public viewing locations and more distant dwellings will experience reduced visual effects. Offsite mitigation planting and progressive rehabilitation will provide meaningful pathways to reduce these effects across the life of the quarry.
629. Overall, the Project will result in unavoidable adverse landscape, natural character, and visual effects, particularly during the early and later stages of quarry development. These effects will be managed through a comprehensive programme of native revegetation across the offset sites, and rehabilitation within the Symonds Hill Pit will play a central role in regreening the landscape over time. These measures will progressively re-establish vegetative patterns, soften engineered landforms, and enhance ecological connectivity across the wider landscape. Overall, the proposed landscape mitigation and rehabilitation programmes will gradually reduce long term landscape, natural character, and visual effects.
630. At the local scale overall landscape effects are assessed as high (significant) during operation (in the absence of mitigation). At completion (following mitigation) local scale effects will be reduced to moderate to moderate-high. At the broader landscape management area scale, landscape effects are assessed as low (not significant) during operation and very low at completion (following mitigation).
631. The landscape character effects at the local level are assessed as moderate-high (adverse) during operation before mitigation, reducing to moderate (adverse) at completion (after mitigation). At the broader landscape, landscape character effects are assessed as low (adverse) during operation before mitigation, reducing to very low (adverse) at completion (after mitigation). Localised effects on the ONL are assessed as moderate (adverse) during operation before mitigation, reducing to low–moderate (adverse) at completion after mitigation. At the broader ONL level, the effects are considered to be low-moderate (adverse) during operation before mitigation, reducing to low (adverse) at completion after mitigation.

632. Overall, some landscape effects (at the local scale) will remain more than minor following mitigation but will not be significant, all other landscape and visual effects will not be significant.

B7.7 Hydrology and Groundwater Effects

633. The Groundwater Effects Assessment prepared by Parviz Namjou and Sean Wheeler at PDP in **Appendix B12.4.9** Groundwater Assessment (Groundwater Assessment) evaluates impacts on the groundwater and surface water resulting from the proposed development of the Symonds Hill Pit.
634. The Assessment identifies four factors that are key to the determination of effects. These are the hydrogeological setting of the Symonds Hill Pit, groundwater movement and levels, recharge and hydraulic conductivity. These are set out in Section 3 of the Groundwater Assessment.
635. The Project differs slightly from the existing consented situation. The maximum zone of influence remains identical to that defined under existing consent WAT60152106-A, as it is controlled by the same geological boundaries. However, drawdown magnitudes within this zone will increase as the pit floor will be deepened from RL -5m to RL -50m and the number of bores potentially affected will increase. The total take also increases marginally from 5,340 m³/d to 5,820 m³/d. The differences are set out in Table 31 below.

Table 31: Differences between Existing and Proposed Development

Aspect	Existing Consent (WAT60152106-A)	Proposed Development	Change
Pit Floor Level	RL -5m	RL -50m	Deeper by 45m
Total Take	5,340 m ³ /d	5,820 m ³ /d	+480 m ³ /d (+9%)
Zone of Influence	31 km ²	31 km ²	Unchanged
Affected Bores	9 identified	19 identified (10 newly identified)	More users within same zone

636. The potential impacts of these changes are set out below.

B7.7.1 Allocation Effects

637. The regional groundwater resource (excluding any storage contribution) within the greywacke block is calculated to be about 4,900 m³/d. The proposed groundwater take of 2,610 m³/d for the quarry operation is within the Auckland Council available resource for take from the designated Hunua West Groundwater Management Area (i.e. 3,147 m³/d).

B7.7.2 Effects on Bore Owners / Groundwater Users

638. The maximum zone of influence resulting from the proposed pumping of the Symonds Hill Pit is predicted to be identical to that defined under the existing consent (WAT60152106-A), as it is controlled by the same geological boundaries. However, the number of potentially affected bore owners has increased from 9 to 19 (due to additional wells being identified by Auckland Council)

rather than being recently drilled. The assessment determines that proposed dewatering below RL 45m, may affect all farm wells within the maximum zone of influence, resulting in significant adverse effects on bore owners. Consequently, conditions of consent are proposed to require ongoing groundwater level monitoring by Winstone (the Consent Holder) to identify any drawdown effects and remediate these. Remediation measures will be set out in the Groundwater Monitoring and Contingency Plan required by the conditions of consent. However, it is likely to involve deepening bores in order to increase their available drawdown. As for the existing consent (WAT60152106-A), no drawdown is expected in the bores drilled into the shallow groundwater, such as Glasgow bore. With the mitigation of impacts through conditions of consent it is expected that effects on bore owners will be no more than minor (not significant).

B7.7.3 Effects of the Proposed Stream Realignment (Shallow Groundwater)

- 639. Effects on the Mangapū Tributary and Mangapū Stream (within shallow groundwater) have been assessed using correlated MALF and reductions in contributing catchment area per quarry stage. For Mangapū Stream, the minimal effect anticipated is a 0–1% flow loss. For the Mangapū Tributary, the effects are as follows: minor loss (0–1%) for Stages 0–2, increasing to 5% for Stages 3–6, and 10% for Stages 7–8 due to shallow groundwater interception.
- 640. If low flow reductions exceed 5% (i.e. beyond natural variability) and this is confirmed by stream low flow monitoring undertaken by Winstone twice a year, this could result in significant adverse impacts on water quality and ecological values. Winstone will then be required by conditions of consent to augment flows to minimise potential adverse impacts, thus ensuring that effects are not significant.

B7.7.4 Effects on the Stream Baseflow within the Regional Groundwater

- 641. Consistent with the existing consent, the Project may reduce baseflow in two streams - the Mangapū and Waipokapu Streams - in downstream areas (<RL 60m) where they receive discharge from regional groundwater.
- 642. For the current dewatering and groundwater take (approx. 1,280 m³/d), estimated losses are 655 m³/d (Mangapū) and 555 m³/d (Waipokapu). For dewatering to RL-50m, predicted losses increase to 946 m³/d (34% reduction) for Mangapū Stream and 2,290 m³/d (35% reduction) for Waipokapu Stream. These predictions are based on a conservative methodology assuming full hydraulic connection between the streams (below RL60m) and the regional groundwater in the greywacke. However, due to the clogging of the stream channel with silts and clays, the actual loss (if any) is likely to be significantly less than the above percentages. However, the loss of flows within the Mangapū and Waipokapu Streams could result in adverse impacts on water quality and ecological values.
- 643. Accordingly, any potential baseflow loss will be confirmed via the proposed stream flow monitoring programme undertaken by Winstone and proposed in consent conditions. This will inform any augmentation to minimise impacts on water quality and ecological values. In this case the addition of water (discharge) is designed to protect rather than adversely affect stream values/habitat and it will ensure adverse effects will be less than minor (not significant).

B7.7.5 Effects on Water Quality

644. Water quality data collected during the life of Hunua Quarry and in 2024 and 2025 demonstrates that the existing quarry operation is not adversely affecting water quality in the Mangapū Stream. The data shows little to no variation between sampling sites that are upstream of the quarry discharge and the downstream sampling point. The concentration of some parameters (Aluminium, Copper and Iron) exceeds default guideline values for 95% species protection. However, the exceedances are relatively minor both upstream and downstream of the quarry discharge, indicating the quarry discharge has a minimal impact on overall stream water quality.
645. It is proposed to test water quality at the production bore HUN14/8 and the Symonds Hill Sump at annual intervals and measure and record water temperature and dissolved oxygen concentration in the augmentation flow discharge to Mangapū Stream and Waipokapu Stream; and in the receiving Mangapū Stream and Waipokapu Stream, immediately upstream and downstream of the discharge points, at two-weekly intervals; and whenever an augmentation flow discharge has been occurring for at least one hour during the period between 1 November to 31 May. In addition, the Proposal will implement the same proven management practices currently undertaken at the Site, within an unchanged hydrological system. It is therefore strongly anticipated that significant adverse impacts on water quality will not occur during the operation of Symonds Hill Pit.

B7.7.6 Effects on Wetlands

646. Two wetlands located within the shallow groundwater zone in the immediate vicinity of the proposed pit footprint (Stage 8) will be affected by the Project. These wetlands are fed by shallow groundwater, which is likely to drain to the pit rather than sustain soil moisture in these wetlands. Therefore, these two identified wetlands will be adversely affected by the proposed quarry development and this is addressed in the Ecological Assessment.
647. Outside the immediate vicinity of the pit footprint (i.e., beyond the shallow groundwater zone), the perched and shallow groundwater systems that sustain nearby wetlands are hydraulically disconnected from the regional groundwater within the greywacke aquifer. Consequently, dewatering of the Symonds Hill Pit will not affect these shallow groundwater systems and there will be no adverse effects on other wetlands outside the shallow groundwater zone.

B7.7.7 Effects on Watercare Reservoir at Hunua

648. Monitoring data from Watercare piezometers near the reservoir since 2014 indicates the groundwater system there is likely separate, with no interaction with Hunua Pit dewatering and no effects on the Watercare reservoir. This is expected to continue with the Symonds Hill Pit development.

B7.7.8 Proposed Mitigation

649. The main groundwater effects of the Project relate to loss of flow in the Waikokapu Stream and Mangapū Stream from regional groundwater due to pit dewatering, especially during the later stages of quarrying activity. It is also likely that the realigned Mangapū Tributary and Mangapū Stream (within shallow groundwater) will lose flows due to reductions in the contributing catchment area as the pit gets deeper. Further, 19 bores within the zone of influence will likely be affected by dewatering, resulting in drawdown effects that may require some, if not all bores to be deepened. The Proposal

will also result in the total loss of some wetlands and two wetlands in the vicinity of the pit will be adversely affected when shallow groundwater likely drains to the pit rather than to these wetlands.

650. The following mitigation and rehabilitation measures are proposed to address the groundwater effects identified arising from the Hunua Quarry Development. These measures encompass monitoring of water levels in on-site bores, water quality monitoring, potential deepening of adjoining bores and augmentation of stream flows, and form part of the mitigation approach intended to reduce the scale and significance of the potential impacts of the Project:

- Groundwater level monitoring programme to monitor drawdown effects. A set of trigger drawdown values form part of the proposed consent conditions, which if exceeded, require Winstone to mitigate any adverse effects on the neighbouring bores resulting from this Project.
- Remedial measures set out in the Groundwater Monitoring and Contingency Plan to address dewatering effects.
- Stream flow monitoring programme that will be used to trigger any augmentation.
- Annual sampling of Bore HUN14/8 (Coal Mine Bore) and the Symonds Hill Sump. 651.

Testing of the augmentation flow discharge to Symonds Stream and Hays Stream; and in the receiving Symonds Stream and Hays Stream, immediately upstream and downstream of the discharge points. These measures will collectively manage any effects on bores in the zone of influence and flows in the Waipokapu Stream and Mangapū Stream. They will also, in conjunction with the measures in the ESCP, maintain existing water quality in these streams.

B7.7.9 Conclusion

652. In conclusion, the groundwater effects related to the Project have been assessed on conservative assumptions and found to be potentially significant, given the scale of the proposed works. However, potential effects can be readily managed through the implementation of the proposed mitigation, monitoring, and augmentation measures to ensure that adverse effects will be no more than minor and not significant.

B7.8 Land Disturbance Effects

653. An Erosion and Sediment Control Assessment (ESC Assessment) in **Appendix B12.4.7** has been undertaken by Megan Dredge of MPD Environmental Limited. The report includes an Erosion and Sediment Plan (ESCP) as Appendix A that identifies the erosion and sediment control (ESC) measures proposed to manage site runoff associated with the earthworks and stream works required for the Project, and for the on-going operational quarrying associated activities within the quarry pit. It assesses the suitability of those measures to minimise the potential discharge of sediment to an acceptable level.

654. An estimate of the sediment yield for the works that are to be treated by compliance with the Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region (GD05) devices has been developed using the Universal Soil Loss Equation (USLE). The existing upstream catchment load (including the site) is estimated to be 400ha and each stage (except Stages 5 and 6) of the proposed development will open up additional areas, which will result in the generation of sediment. Stage 1, for example will likely generate up to 51.5 tonnes of sediment, representing a 2.5% increase in the load derived from the existing catchment. Stages 7 and 8 will generate 950-

1000 tonnes per year, although stages will generally be divided into smaller campaigns, meaning that the yields are very conservative. Those stages will also be subject to further regional consenting requirements at the relevant times.

B7.8.1 Erosion and Sediment Effects

655. The effective control of any erosion and sediment runoff is fundamental to minimising risks to the natural environment, especially waterways during quarrying activities. Whilst the removal of overburden and earthworks required to create haul roads and new sections of stream are necessary for the operation of the quarry, they can have significant impacts if undertaken without stringent controls. This is pertinent to this Site due to its large catchment area and the high-intensity rainfall typical of the Hunua Ranges.
656. Works in, or around, streams have the potential to directly impact on watercourse habitat resulting from disturbance or destruction, and on watercourse ecology (such as through sediment and temperature-related effects). Silt laden stormwater discharging to waterways can also adversely impact on water quality and smother vegetation on the beds of streams. Both can result in potentially significant adverse impacts on species diversity and habitats. Consequently, the implementation of ESC measures is necessary as each stage of the proposed development will result in the generation of large volumes of sediment.
657. While the anticipated effects are context related, the available control methods are widely proven and well understood and Winstone has a good track record of managing sediment via its existing ESCP on site. Clean water diversions will be constructed to divert upper catchment clean water away from the area of works. Sediment retention ponds (SRPs) will be used to treat sediment laden runoff and reduce the volume of sediment leaving the Site, to protect downstream environments from excessive sedimentation, water quality degradation and impacts of increased flow. The SRPs are suitable for catchments sized between 0.3 – 5 Ha. Several Decanting Earth Bunds (DEBs) will be constructed to manage runoff from the Stage 1 – 2 works for the stream diversion and western haul road. Furthermore, in accordance with best practice, all SRPs and DEBs to be used in the enabling works will be chemically treated to enhance sediment retention efficiency. Winter works are proposed to be undertaken and will be carefully monitored especially during periods of wet weather, noting that the ability to undertake such works during the winter months reflects the changing nature of weather patterns and that many extreme weather events increasingly occur outside May to October.
658. The implementation of best practice erosion and sediment controls during land disturbing activities will ensure that adverse effects on receiving environments can be appropriately mitigated. However, it is noted that some sediment will likely be discharged from sediment devices in areas of works during rainfall events, but this will generally occur when the streams are under higher flows and receiving sediment from other sources in the catchment. Consequently, additional monitoring and water quality sampling is proposed to be undertaken after an event resulting in 25mm of rainfall in a 24-hour period and 15mm in a 1-hour period.
659. It is considered that there are no alternative measures or controls that can be implemented to manage sediment runoff as Winstone already implements best practice ESC and proposes to continue to do so. On this basis, effects relating to sediment run off will not be significant.

B7.8.2 Proposed Mitigation

660. The Site already has an effective ESCP in place. Consequently, most of the control measures set out in the current ESCP will also be adopted as part of the new global ESCP.
661. The mitigation measures are based upon the 10 principles set out in the document: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region (GD05) and include:
- maintaining the operational effectiveness and efficiency of all erosion and sediment control measures throughout the duration of, and each stage of, earthworks/quarrying activity, or until the Site is permanently stabilised against erosion.
 - ensuring that the accumulated sediment be removed from sediment retention devices prior to reaching 20% live storage capacity. The SRP or DEB must have at least 80% treatment capacity at all times. Sediment removed from treatment devices will not be placed within the OBDA or stable ground where it cannot re-enter the device or be washed into any watercourse.
 - the SRP sump or any sumps around the Site must be cleaned out regularly and after every large storm event to allow them to be effective during and immediately after future rain events
 - the use of dirty water diversion bunds, silt fences, decanting earth bunds (DEBs) and sediment retention ponds (SRPs) to direct 'dirty water' to the appropriate sediment retention device.
 - sediment laden water will be chemically treated, as required, before being discharged to land and/or water.
 - silt fences will be used to treat site runoff from small areas that will not actively drain to an SRP or DEB and around specific isolated stream channel works.
 - the SRPs, DEBs, silt fences and super silt fences will remain in place until all surfaces within the contributing catchments are stabilised by grass (strike > 80%), aggregate or are deemed to be non-erodible material (e.g. rock). This aligns with the requirements of GD05.
 - during rainfall events, or when heavy rain is expected which has the potential to overwhelm the pumps, the work site will be fully stabilised to allow the stream to flow through the worksite.
 - Limiting areas of vegetation clearance and earthwork and ensuring exposed soil is progressively stabilised.
 - water quality sampling will be undertaken to ensure that the median suspended sediment concentration measured at a downstream location, when compared to upstream does not increase by more than 20%, as measured on a quarterly basis.
 - that all maintenance inspections be documented and available upon request to Auckland Council and the Council will be promptly informed of any failures that result in necessary remedial actions must be reported to Council's Earthworks and Stream works Monitoring Office within 24 hours of becoming aware of the failure.
662. These measures are discussed in detail in the ESC Assessment Report prepared by MPD and will form the basis of the erosion and sediment control plan (ESCP) required by conditions of consent. A copy of the draft ESCP can be found at Appendix A of the Erosion and Sediment Control Assessment (**Appendix B12.4.7**).

663. In addition, proposed conditions require a suitably qualified expert to certify the erosion and sediment control measures have been constructed in accordance with the approved ESCP and GD05. This will ensure that the ESC measures are appropriately installed to minimise any risks of failure and ensure Winstone properly manage varying conditions on site.
664. These measures collectively will reduce the impacts of erosion and sediment loss resulting from land disturbance on aquatic habitats and water quality.

B7.8.3 Conclusion

665. Given the effective use of ESCP measures on the Site to date, and their continued use and maintenance as proposed through a certified ESCP, the effects of land disturbance activities on receiving environments will be effectively managed, such that they are no more than minor and not significant.

B7.9 Geotechnical and Site Stability Effects

666. A Geotechnical Assessment has been undertaken by P Mathewson and reviewed by D. Johnson from Tonkin & Taylor. The report evaluates the Project in terms of the suitability of ground conditions for quarrying and risks associated with instability, rock mass dilation and groundwater drawdown induced settlement. A copy of this report is provided in **Appendix B12.4.8**.

B7.9.1 Site Suitability

667. The underlying geology is a critical consideration when selecting a site for quarry development. The proposed quarry development will encounter Waipapa Group Greywacke (the resource), Waitemata Group and WCM. The ground investigations as set out in the Geotechnical Assessment conclude that ground conditions are suitable for quarrying from a geotechnical perspective. Accordingly, the proposed Hunua Quarry Development can be feasibly undertaken, subject to detailed design and construction monitoring.

B7.9.2 Slope Stability

668. The Geotechnical Assessment identifies a number of geological features either in proximity to or traversing through the Site which can impact on slope stability. Instability can result in slope failure, posing operational hazards and safety risks both on and off-site. These geological features include:
- Regional Faults (including the Drury and Hunua Fault Systems).
 - Major faults: this includes two major faults identified within the Symonds Hill Pit area and three major faults in the Hunua Pit. It is noted that the Hunua Pit faults are not mapped as projecting into the Symonds Hill Pit, however there is the potential for related defects to be present. Similarly, it is possible for other unmapped faults to be present within the Site.
 - Persistent joint sets within the Symonds Hill Pit cut faces which have the potential to impact cut face stability.
 - Bedding: while this is not identified as a prominent defect and has not been observed within the Hunua or Symonds Hill Pit excavations to date, as the quarry development progresses it is possible ground conditions could change.

669. Additionally, the Geotechnical Assessment identifies areas within the Quarry Development Area which have been subject to historical landslides and slope instability. In reviewing the proposed engineering slope designs for each stage and across different parts of the Quarry Development Area, the Geotechnical Assessment found that the majority of the proposed designs could meet the required Factor of Safety for the relevant ground conditions and are overall found to have a low or 'acceptable' risk of instability ('R1' or 'R2'). This also applies to the Mangapū Tributary Realignment route. It is noted that quarry development in the northern portion of the Quarry Development Area has the potential to result in moderate risk ('R3') of slope instability due to historical landslides. However, the Geotechnical Assessment notes that further investigation would enable appropriate design to achieve the required Factor of Safety for the relevant ground conditions and effectively mitigate any potential adverse effects.
670. Monitoring is recommended throughout the excavation program, across Stages 1 – 8, to ensure rock mass quality prior to slope construction. This will rule out any potential unknown risks associated with the identified faults, and allows for design changes should unfavourable ground conditions be encountered.

B7.9.3 Rock Mass Dilation

671. As rock is removed during quarrying, the stresses on the surrounding remaining rock mass change because of reduced overburden mass and removal side support to a slope. This leads to the opening of existing defects and can lead to the creation of new defects.
672. The Geotechnical Assessment identifies that Stage 8 introduces a potential risk of rock mass dilation at the quarry face, which could result in adverse effects on adjacent property boundaries and the Mangapū Stream. Further analysis demonstrates that up to 10 mm of dilation may be expected at the quarry face, which is estimated to quickly decrease back into the rock mass and is overall considered to result in a low, or acceptable, level of risk ('R1') to adjacent property boundaries. With regards to impacts on the Mangapū Stream, modelling suggests rock mass dilation will be less than 5mm and is overall considered to be an 'acceptable' level of risk ('R1 or R2') to Mangapū Stream and therefore less than minor (not significant).

B7.9.4 Groundwater Drawdown Induced Settlement

673. Groundwater drawdown induced settlement may occur when lowering the water table, during pumping at the base of the operational pit, increases the effective stress on soil, leading to consolidation and surface deformation. Given the ground conditions within which the regional groundwater draw down is to occur within and that pumping in the Symonds Hill Pit is not anticipated to influence perched levels (based on the Groundwater Assessment undertaken by PDP), it is estimated that <1mm of settlement may occur. Overall, the geotechnical assessment finds the risk of groundwater induced settlement to occur beyond the site boundaries is considered 'acceptable' ('R1') and consequently less than minor (not significant).

B7.9.5 Proposed Mitigation

674. No impacts are expected beyond the site boundaries. All earthworks and any potential geotechnical and slope stability effects remain entirely within FCIL-owned land and any risk to on-site activities will be managed through the application of a Trigger Action Response Plan (TARP). The purpose of the TARP is to guide appropriate responses if ground conditions are discovered to differ from those

anticipated. Application of a TARP is intended to reduce the scale and significance of the potential effects of the development.

675. The objective of the TARP is to set out the measures to manage geotechnical risk to achieve the following limits:
- R1 for land and land use beyond the Site boundary not in FCIL ownership;
 - R1 or R2 for land owned by FCIL within the Site boundary (but outside the consented Quarry Development Area); and
 - R3 within the Site boundary, where achieving R1 or R2 is not practicable.
676. The Geotechnical Assessment details the parameters of the TARP. In summary, the TARP will address the following matters:
- guidance to operational staff on what may constitute unexpected ground conditions, what to do if unexpected ground conditions are encountered, levels of escalation required for different observations, and management reporting requirements.
 - the requirement to review quarry geotechnical conditions against observed geology, slope performance, and groundwater conditions at specified times.
 - response options where there is significant deviation from expected conditions
677. response pathways in accordance with the Risk Assessment Matrix in Appendix H of the Geotechnical Report prepared by Tonkin + Taylor, dated March 2026 where an increase of geotechnical risk over and above R2 is identified, where it is not practicable to reduce geotechnical risks to R1 or R2 within the Quarry Development Area, and/or after a Council initiated review of conditions.
678. Targeted investigations within the Mangapū Stream diversion area and the northwestern and eastern areas (i.e., where previous slope instability has been mapped) will also be undertaken as the quarry advances. Winstone will also produce an annual monitoring report that details any response taken to achieve the required geotechnical limits.

B7.9.6 Conclusion

679. In conclusion, the geotechnical assessment confirms the quarry development to be feasible and finds offsite effects such as slope stability, groundwater drawdown induced settlement and rock mass dilation can be managed through design. Ground movement impacts beyond FCIL owned land are likely to be negligible (less than 10 mm) and pose an acceptable (R1) level of risk to neighbouring land, and as such are less than minor and not significant. Stability within the Site is able to be managed through design to an acceptable level of risk (R1 or R2) and is also less than minor (not significant).
680. Overall, subject to the implementation of the TARP, the adverse geological and slope stability effects are assessed to be not significant and less than minor. Continued monitoring and adaptive management through the excavation phases will ensure that any emerging geological or hydrogeological risks are effectively identified and mitigated to acceptable (not significant) levels (R1 to R2).

B7.10 Noise and Vibration Effects

681. An Acoustics and Vibration Assessment has been undertaken by Styles Group Acoustic and Vibration Consultants. The Acoustics and Vibration Assessment report has been authored by Jamie Exeter and peer reviewed by Jon Styles. Both are qualified acoustic specialists and members of the Acoustical Society of New Zealand. The Acoustics and Vibration Assessment report identifies all construction and operational noise and vibration sources associated with the Project along with the levels expected at neighbouring sites. It also identifies where the Project infringes relevant AUP noise and vibration standards and describes the potential effects of these emissions in the context of the existing environment, the applicable AUP provisions, and s16, RMA. Mitigation measures and consent conditions to appropriately manage these effects are recommended. A copy of the Acoustics and Vibration Assessment report is included in **Appendix B12.4.11**.
682. In preparing this assessment of any potential noise effects of the proposed expansion of the Hunua Quarry have been disregarded on sites which have provided written approval to the application (Listed in section B1.6).
683. The Project is being undertaken on a split zoned site being located on land in the SPQZ and the RMRZ. Mineral extraction is classed as a controlled activity within the SPQZ and as a discretionary activity in the RMRZ. The SPQZ includes controlled activity noise standards that must be complied with (H28.6.2), while noise in the RMRZ is covered in the Auckland wide rules in Chapter E25. The Project also involves construction works to establish, maintain and reconfigure the site. These works include vegetation clearance, haul road construction, the stream realignment and rehabilitation work and are assessed against the AUP construction noise standards in Chapter E25.6.27.

B7.10.1 Operational Noise and Vibration effects

684. The Acoustics and Vibration Assessment identifies all relevant construction and operational noise sources associated with the proposed activity and has calculated the potential noise levels at the neighbouring sites using noise modelling software. The calculations and assessments have identified that construction and operational noise from the proposed activity will comply with all relevant noise standards of the AUP, with the following exceptions:
- H28.6.2.1: The operational noise limits under this standard cannot be complied with because the proposed activities will be undertaken at and beyond the relevant assessment locations. Additionally, it would be impracticable to monitor compliance where different noise limits apply to activities as they transition between the two zones.
 - H28.6.2.2: Deviation from this blasting noise standard is required to clarify ambiguities around monitoring and assessment and to adopt industry best practice.
 - E25.6.31.(1): Infringement of the permitted blasting noise standard by activities in the Rural – Mixed Rural Zone when assessed at the boundaries of properties where written approval to the application has been provided.
685. The Acoustics and Vibration Assessment raise concerns that compliance with the Quarry Effects Line noise limits will not ensure that adverse noise effects will be avoided at houses constructed after 1 January 2001. There is no certainty about the actual noise level that might be received at these properties, and it could be less or greater than the pre-2001 notional boundary limits. This creates an unnecessary risk to the receivers of noise and the noise generator as it potentially allows for unreasonable noise levels at houses established after January 2001.

686. Accordingly, alternative noise limits to the AUP standards H28.6.2.1 and H28.6.2.2 are proposed to cover the proposed activities at Hunua Quarry. These limits are recommended as proposed conditions of consent that should apply if consent is granted to the application. These conditions will apply a single cumulative noise limit to all activities in the daytime and one set of noise limits at night, regardless of nature and location of the activity or when the receiver's house was constructed. The recommended condition excludes all properties where written approval to the application has been provided.
687. All works associated with blasting for the purpose of excavating rock are considered operational and not construction. Construction work in the expansion areas of the quarry will take place at least 10 m below the existing ground level at the nearest boundary and in all cases at least 150 m to 300 m from the nearest dwellings. Construction activities will involve similar (and possibly the same) machinery as stripping and extraction activities.
688. The Acoustics and Vibration Assessment outlines that the AUP controls for noise and vibration from blasting in the SPQZ are unclear and conflicting. Like the SPQZ noise standards, the blasting limits only apply at dwellings that existed at 1 January 2001. In addition, they reference three different measurement locations and two different standards for managing damage to buildings. They are also inconsistent with the guidance of DIN 4150-3:1999 which is the Standard referenced in the AUP (i.e., only controlling vibration in the horizontal axis when measured at the notional boundary or foundation of a building).
689. The Project also involves blasting in the RMRZ. While the AUP sets permitted noise standards for blasting in the zone (E25.6.31), it does not set permitted vibration standards. The Acoustics and Vibration Assessment therefore recommend the limits for blasting vibration generated in the SPQZ are adopted for blasting in the RMRZ. This requirement is included in the recommended conditions and the draft ONMP.
690. Therefore, a set of resource consent conditions are recommended to be imposed for blasting noise and vibration on the site. These conditions will deliver the same fundamental outcome and level of anticipated effect as the AUP standards but ensure that the limits are clear and certain to all stakeholders and apply to all receivers. The only exception is the recommended overpressure limits will not apply to those sites where written approvals have been provided to the application.

B7.10.2 Construction Noise and Vibration Effects

691. The construction phases in the expansion areas of the quarry will involve vegetation clearance, works associated with the stream diversion (including the temporary bridge and culvert construction), construction of the western haul road and incremental rehabilitation works. Construction work will take place at least 10 m below the existing ground level at the nearest boundary and in all cases at least 150 m to 300 m from the nearest dwellings. Construction activities will involve similar (and possibly the same) machinery as stripping and extraction activities.
692. Most of the construction work required over the life of the Project will be similar in nature to construction work already undertaken in the Symonds Hill Pit. The noise and vibration generated by the proposed construction work will mostly be indistinguishable from that generated by operational extraction activities.
693. Construction noise generated by the existing quarry activity includes excavation and the movement of heavy vehicles and machinery. These activities must comply with the AUP construction noise levels for "activities sensitive to noise" set out E25.6.27. In the case of the Hunua site, the nearest "activities sensitive to noise" are dwellings.

694. The Acoustics and Vibration Assessment indicates that construction noise will be audible at the nearest notional boundaries when works are undertaken in the closest parts of the site. At other times, construction noise will range from inaudible to just perceptible. The predicted construction noise levels will comply with the AUP limits in Chapter E25 of 70 dB LAeq and 85 dB L_Amax by significant margins. This is mainly due to the substantial separation distances between the works and receivers and is not expected to cause unreasonable noise effects on any neighbouring site.
695. Construction vibration generated at the existing quarry must comply with AUP standard E25.6.30. Construction works during the day are required to comply with a vibration limit of 2 mm/s PPV in any occupied building containing an activity sensitive to noise and compliance with the guideline vibration values of DIN 4150–3:1999 in all buildings (whether occupied or not). The Acoustics and Vibration Assessment concludes that construction vibration will also comply with the relevant AUP standards and is unlikely to be perceptible within any neighbouring dwelling.

B7.10.3 Proposed Mitigation

696. The conditions recommended in the Acoustics and Vibration Assessment will provide controls for noise management that are clear, enforceable, and will provide certainty for both the neighbouring residents and the Hunua Quarry operation. They will ensure that the noise effects associated with the construction works and operation of the quarry do not exceed a reasonable level at all relevant notional boundaries. The proposed approach recognises the existing noise limits under Chapter H28 only apply at the notional boundaries of dwellings that existed at 1 January 2001. Overall, the proposed conditions provide better controls than the operative AUP standards for all the surrounding residents in terms of potential noise effects, regardless of when their dwellings were constructed.
697. In addition, a condition is proposed to require the preparation of an Operational Noise and Vibration Management Plan (ONMP) for the existing and proposed activities at the quarry. The ONMP will set out all mitigation measures and operational restrictions required to ensure that the relevant noise and vibration limits are complied with. It will also include procedures for minimising noise and vibration effects on the neighbours, ensuring compliance with the relevant noise and vibration limits, undertaking noise and vibration measurements, communicating with neighbours, managing any noise complaints, and making updates to adapt to changes over the life of the quarry, such as the emergence of new site vehicles and machinery. The draft ONMP is provided as Appendix B to the Acoustics and Vibration Assessment report in **Appendix B12.4.11**.

B7.10.4 Conclusion

698. Operational noise has been modelled to comply with the recommended limits, which are slightly more stringent than the AUP noise limits under Chapter H28 and apply at all relevant notional boundaries in the rural zone, regardless of the timing of their construction. Adopting the recommended conditions outlined in Acoustics and Vibration Assessment will ensure that operational noise and vibration does not cause unreasonable annoyance or disruption during the day or sleep disturbance at night at any existing or future rural zone sites.
699. Construction noise will be audible at the nearest notional boundaries when works are undertaken in the closest parts of the site to this boundary. At other times, construction noise will range from inaudible to just perceptible. Construction noise will comply with the relevant AUP standards by a considerable margin and is not expected to cause unreasonable noise effects. Construction vibration will also comply with the relevant AUP limits and is unlikely to be perceptible within any neighbouring dwelling.

700. The Project can comply with the AUP blasting noise and vibration standards within the SPQZ and RMRZ. The Acoustics and Vibration Assessment, however, considers the operative standards contain ambiguities and don't apply limits at the nearest receivers. Therefore, the report recommends applying noise and vibration conditions that provide for improved environmental outcomes relative to the current AUP standards, reducing potential effects on the neighbouring residents. The recommended conditions are more clearly expressed and align with best practice.
701. Subject to the inclusion of recommended conditions set out in Section 7.0 of the Acoustics and Vibration Assessment report, the overall noise and vibration effects associated with the construction and operation of the Project are considered unlikely to exceed a reasonable level and thus will be less than minor (not significant). In the case of dwellings built after 1 January 2001, the proposed conditions will ensure that adverse noise effects will be avoided and provides a better noise environment in comparison with the outcomes set by the SPQZ noise, vibration and blasting standards in AUP (Chapter H28.6.1 and 2).

B7.11 Stream Realignment

702. PDP have undertaken an assessment on the design and effects of the proposed Mangapū Tributary realignment. The report evaluates the hydraulic and flooding effects and erosion, sediment and scouring effects as a result of the proposed design of the realigned stream channel. A copy of this report is included in **Appendix B12.4.6**.

B7.11.1 Erosion, Sedimentation and Scouring Effects

703. The proposed new channel has a much steeper gradient (approximately 7.5%) than the existing Mangapū tributary (approximately 5%). If the channel were to follow along the direct gradient, it would create a high velocity flume. The increased flow velocities would lead to rapid discharge into the new confluence of the Mangapū Stream, resulting in increased erosion and sediment deposition in flatter sections of the Mangapū Stream. Without mitigation, the proposed realignment would significantly alter the form and function of the stream and result in adverse erosion, sediment and scouring effects.
704. The PDP report notes that the stream is embedded in rock which will assist in limiting erosion of sediment. Furthermore, any effects of erosion and sedimentation are anticipated to reduce further downstream of the proposed confluence as flow and velocity are predicted to reduce.
705. Additionally, it is noted that increased velocities are likely to cause the stream to widen where the underlying geology is softer soil (rather than rock). The widening will result in flows reducing and becoming shallower over time. PDP consider the widening of the stream to be a less than minor effect as it will not negatively affect the conveyance of flows.

B7.11.2 Flooding Effects

706. The proposed channel is designed to contain a large out-of-bank flood channel, incorporation a smaller, meandering low flow channel. The new flood channel has been designed to convey the 1% AEP flow with climate change to 3.8 degrees of warming. The meandering channel is designed to convey regular rainfall events up to the mean annual flood. The proposed channel will be shorter than the existing channel and will have a steeper gradient and modified geometry. As a result, the hydraulic and flood behaviour will differ from existing conditions.

707. The PDP report assesses velocity and flood depth for 1% AEP (100-year ARI), 10% AEP (10-year ARI) and 50% AEP (2-year ARI) to determine potential changes to flood risk and effect. It is noted that the modelling is based on the proposed channel without any mitigation design features included.
708. The results show that the proposed realignment will increase flood depths by more than 100mm on the Mangapū Stream between the new and existing confluence. The PDP report notes that this reach of stream is a deep, steep sided gully, where increased flood depths will be contained and will not affect neighbouring properties. Modelling indicates negligible increases in flood levels in rural forested areas (up to 50mm) and residential rural areas (up to 15mm).
709. Three rural land areas are identified to result in flooding where none currently occurs. However, the extent is negligible and will not impact on residential land or buildings.
710. The PDP report concludes that there will be no impact on people and communities, other properties, infrastructure or the environment because of flooding and that overall, any flooding effects attributable to the proposed realignment, will be less than minor.

B7.11.3 Proposed Mitigation

711. The following mitigation measures are proposed to address potential effects identified arising from the proposed stream realignment. These measures form part of the mitigation approach and are intended to reduce the scale and significance of the potential effects of the stream realignment. The proposed measures are outlined below.

B7.11.3.1 Engineering design features:

712. The proposed channel design includes as many features as possible of the existing channel to replicate its shape and overall morphology. This includes engineered meanders to regulate flow depth and velocity. Other in-stream features alter gradients and assist in slowing velocity, allowing for natural deposition of sediment within the proposed channel by altering gradient and breaking up flow. These include:
- Plunge pools/scour basins at the downstream end of waterfalls and cascade features. These areas allow for the energy of the flowing water to dissipate.
 - Linear rock placement with suitably sized rock to arrest lateral and erosion and downwards scour.
 - Protection of the new confluence of the Mangapū Stream and the Mangapū Tributary by the considered placement of rock.
 - Riparian vegetation / planting banks to limit erosion.
713. Other key engineering design principles are set out in the Stream Realignment Management Plan (SRMP) and PDP recommended that works are undertaken in accordance with that management plan. The SRMP is included as a proposed consent condition.

B7.11.3.2 Monitoring and operational maintenance:

714. It is recommended that an operational maintenance plan be prepared to align with the Stream Realignment Management Plan. The operational maintenance plan will detail key operational requirements such as routine inspections to inform maintenance needs along with flood response and associated repairs to maintain the design intent and mitigate adverse effects.

715. Key matters to be addressed in the operational maintenance plan include:
- Maintenance of riparian vegetation to support erosion control and channel stability including:
 - Regular inspections to monitor plant survival, removal of invasive species and to maintain stream bank integrity.
 - Replacement of dead plants to maintain continuity in vegetation/ riparian buffer (particularly important in early growth stages)
 - Removal of sediment/ debris following a flood event that may hinder growth.
 - Rehabilitation following flood events.
 - Flood and erosion response: Maintenance and repair work will likely be required following significant flood events, particularly in the early establishment years of the channel. The Stream Realignment Management Plan will incorporate a post-flood response protocol which will detail the necessary process and repair provisions should the realigned channel and banks be damaged during a flood event.
716. Additionally, PDP recommend continuous flow gauging on the Mangapū Stream and Mangapū Tributary to refine the hydrological assessment for detailed design phase.
717. These measures collectively will reduce potential effects relating to erosion, sediment and scouring and ensure longevity of flood design measures.

B7.11.4 Conclusion

718. In conclusion, the increased flow and velocity associated with the steeper gradient of the proposed stream realignment channel has the potential generate adverse erosion, sedimentation and scouring effects and increase flood risk. However, subject to works being undertaken in accordance with the proposed engineering designs and the SRMP, it is considered the proposed stream realignment will result in less than minor adverse erosion, sediment and scouring effects and flooding effects (no significant effects).

B7.12 Ground Contamination

719. A Site Contamination Investigation has been undertaken by PDP (**Appendix B12.4.3**). The report determines the presence of any HAIL, or other potentially contaminating activities within the Quarry Development Area, evaluates test results against the Resource Management (*National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*) Regulations 2011 (NES-CS) and the contaminated land rules within the AUP and provides recommendations.

B7.12.1 Contamination Effects

720. The vast majority of the Quarry Development Area is not considered to contain, or have previously contained, any HAIL activities (being those identified on the Hazardous Activities and Industries List). However, soil samples within discrete areas around the stockyards (identified in the PDP report as the C+R Rack, Graveyard and extension of Graveyard area) contain concentrations of heavy metals, PAH and TPH in excess of background criteria which does not comply with Regulation 5(9) of the NES-CS.

721. Only one soil sample (PMS08, collected from the extension of the Graveyard area) indicated TPH exceeding the background concentration level for human health risk for commercial / industrial land use. A further subsurface sample indicated a reduction in concentrations with depth. Therefore, the health risk to site users is considered to be low. Regardless, it is recommended that this soil be excavated from the investigation area (prior to undertaking bulk earthworks in this area) and disposed of at an appropriate facility.
722. Apart from the shallow soil in the vicinity of the sampling site PMS08, the soil within the investigation area can be reused onsite. However, as various PAH/TPH compounds were detected in all analysed soil samples, any excess fill material from the remaining stockyard areas cannot be considered clean fill and, if not reused on site, will require disposal at an appropriate disposal facility. All other excess soil from within the Quarry Development Area and located outside the stockyard areas can be considered clean fill if not reused on site.

B7.12.2 Proposed Mitigation

723. The following mitigation measures are recommended in the Site Contamination Investigation to address potential contamination effects as a result of land disturbance within the stockyard area. They recognise that works in Stages 7 and 8 will not commence for a further ~35 years and during that time, activities could result in potential increases in contamination within the Graveyard extension area.
724. As such, conditions of consent will require additional DSI to be undertaken at least six months prior to Stages 7 and 8 commencing. If contamination is identified by the DSI, a Remediation Action Plan (RAP) and Site Management Plan (SMP) will be developed. The SMP will set out industry specific protocols for handling of contaminated materials to mitigate risks to human health and the environment. The RAP will set out procedures specific to the remediation of the identified contamination.
725. A Suitably Qualified and Experienced Person (SQEP) must supervise the excavation and re-use of any contaminated materials identified in the future DSI and prepare a site validation report confirming compliance with the RAP. This will be submitted to Council following completion of works.
726. Any contaminated material removed from the Site will be disposed of at a facility authorised to receive such material and Council will be notified.

B7.12.3 Conclusion

727. In conclusion, contaminated land has been identified within a discrete area of the Project footprint. Potential impacts on people and the environment will be effectively managed and minimised, provided future works are undertaken in accordance with the proposed mitigation measures set out in the conditions of consent.
728. Overall, it is considered there is very low risk to human health and the environment and any adverse impacts arising from potentially contaminated soils will not be significant.

B7.13 Cultural Values

729. An assessment of the cultural values identified by mana whenua in relation to the Project has been prepared by Wikaira Consulting. A copy of this report is located at **Appendix A6.7** (Cultural Values

and Consultation Summary Report). These values have been identified, following engagement, through cultural values assessments, memoranda, and direct input from mana whenua. In Sections 5.6 – 5.11 of the Iwi Engagement Report the matters raised by mana whenua through the engagement process and are summarised as follows:

- (a) Waterways and mauri – related to maintaining water quality and the life supporting capacity for the native species that rely on it. Particular concerns were raised in regard to the stream diversion including hydrology, achieving a natural form and maintaining its ecological function.
- (b) Ecology and taonga species - recognition of ecological values of the affected areas, including taonga species, habitat, fish passage and overall ecological function.
- (c) Mahinga kai and resource use – related to the effects on waterways is the significance on water and land for gardening
- (d) Landscape restoration and rehabilitation expectations for the long-term-care and rehabilitation of the quarry landscape
- (e) Cultural landscapes – cultural values are relevant across a network of places, including maunga, transport corridors and waterways, highlighting that the Project must be understood within a wider cultural landscape
- (f) Wetlands – identified as culturally significant and sensitive environments
- (g) Archaeology – presence of significant archaeological history with artefacts and taonga across the area.

730. The matters raised during the pre-lodgement engagement phase with mana whenua included cultural induction to support Winstone to understand the cultural values that were being expressed.

B7.13.1 Cultural Values Identified by Mana Whenua

731. Ngāti Tamaoho identified several key values that are consistent with the existing partnership with Winstone including ongoing partnership and relationship arrangements as the Project progresses. This is consistent with Ngāti Tamaoho expectations with a role as kaitiaki and how this underpins the development, management, and long-term rehabilitation of the quarry. This extends with expectation to be involved with management planning and implementation in specific areas comprising cultural landscapes; waterways, mahinga kai and resource use; wetlands and ecology; archaeology and historic cultural narratives.

732. Te Ākitai Waiohū have provided a CVA in 2024 (in advance of the Fast Track Approvals Bill being passed or the project being listed) and have been briefed of the Project at hui, technical workshops, and a site visit in January and February 2026. Cultural Values Assessment Addendum (**CVA Addendum**) was received on 30 March 2026, the addendum notes that it has been prepared “to supplement the original CVA with formal project recommendations after Te Ākitai Waiohū received more detailed information and technical reports to provide further feedback”.

733. The CVA and CVA Addendum provided by Te Ākitai Waiohū provided outlines the relationship of Te Ākitai Waiohū in the rohe, and cultural values associated with the whenua, waterways, and ancestral landscapes, with a strong focus on protecting mauri and maintaining the integrity of interconnected natural systems. The CVA and CVA Addendum highlights the cumulative effects of land use change, quarrying and environmental degradation within the rohe. The effects identified include those on the maunga and the Manukau Harbour and inform the approach that Te Ākitai Waiohū take to development of this nature. The key values identified include ongoing partnership

and relationship arrangements as the Project progresses, the exercise of kaitiakitanga, and ongoing involvement in management planning and implementation including in relation to cultural landscapes and ancestral sites; whenua and waterways, including mauri and ecological integrity; and ecological systems and interconnected natural environments.

734.

The Te Ākitai Waiohū CVA Addendum includes Project specific recommendations reinforcing the need for ongoing participation, consultation and engagement of Te Ākitai Waiohū from design to implementation. This includes access to and feedback on the Cultural Values and Consultation Summary Report, Archaeological Management Plan, Mangapū Stream Tributary Realignment Management Plan, Landscape and Ecology Rehabilitation Strategy and Management and conditions. The CVA Addendum set out that Te Ākitai Waiohū opposes the Project in principle as *“it will have significant adverse cultural effects that cannot be avoided or fully mitigated with the removal of indigenous vegetation in SEA and ONL areas and reclamation, diversion and modification of a local stream and wetlands.”* The CVA Addendum also identifies:

- (a) The need for the assessment of landscape and visual effects of the project on Pukekōiuriki pa in Red Hill as a site of cultural significance and Red Hill Scenic Reserve as a public park and cultural redress statutory acknowledgement site.
- (b) Archaeological discoveries are possible, particularly around the local waterways and recording information does not mitigate effects on cultural values. Te Ākitai Waiohū seek that Archaeological Management Plans are staged and information shared; accidental discovery protocols are agreed and incorporate tikanga; and, that cultural inductions are undertaken prior to commencement of earthworks and iwi monitoring is provided for.
- (c) Te Ākitai Waiohū seek that ecological monitoring of the Mangapū Stream Tributary area be undertaken for a minimum of 10 years. Through appropriate management plans provide for provide opportunity for Te Ākitai Waiohū to participate in the development and implementation of the plans, such as iwi monitoring of the capture and release of native wildlife species.
- (d) Te Ākitai Waiohū acknowledges the proposed use of offset mitigation, noting the time for replacement planting to mitigate the effects and the loss of establish trees including kauri. Te Ākitai Waiohū support the quantum of offset mitigation planting and, management and protection mechanisms (noting a 10-year monitoring and pest management regime is necessary) but do not support the offset planting at the Meremere and recommend that all offset planting is undertaken in within the urban boundaries of Tāmaki Makaurau.
- (e) Additional matters include: the management of sedimentation; monitoring of groundwater and surface water quality; the augmentation of stream baseflows and the matters related to site rehabilitation after quarrying operations.

735.

Ngāti Te Āta Waiohū have provided a memorandum setting out their position on the Project. The memorandum is framed around principles, conditions and recommendations for the Project. The key principles include: rangapū (partnership); mana tupuna / whakapapa (ancestral connection); ahi kā (ongoing presence); kaitiakitanga (guardianship); and, taiao / mauri (environmental wellbeing). The memorandum identifies matters to be managed by way of conditions. The conditions suggested include the protection of culturally significant sites; provision for tikanga during construction; active involvement in design; and, safeguarding the mauri of Te Mangapū. The memorandum concludes with recommendations for: the preparation of a Cultural Management Plan; ongoing engagement; and involvement in the development and implementation of management plans.

736. Engagement with mana whenua is ongoing and will continue through the development and implementation of the Project. The process, who was engaged with and the outcomes of that engagement are set out in the Cultural Values and Consultation Summary Report at **Appendix A6.7**.

B7.13.2 Project Responses to Identified Cultural Values

737. To address the cultural values that have been identified by mana whenua, the Project has been designed to take into account the matters that have been identified. Cultural values have informed the design of key components of the Project, including the realignment of the Mangapū Stream tributary, stream design and water management approaches, and the rehabilitation and revegetation of affected areas.
738. To secure the outcomes that have been identified and manage the cultural effects of these aspects of the Project requirements have been embedded into various management plans, including the Mangapū Stream Tributary Realignment Management Plan; Landscape and Ecology Rehabilitation Strategy and Management Plan; Aquatic Fauna Salvage and Relocation Plan; Lizard Management Plan; and the Pest Management Plan.
739. By providing mana whenua with the opportunity for involvement in the development, refinement, and implementation of management plans supporting the Project, this will ensure that effects on cultural values can be managed to acceptable levels.
740. It is anticipated that further refinement of these management plans can occur and will be incorporated through ongoing engagement and input from mana whenua, and a Kaitiaki Forum is proposed to facilitate this process, in the development, refinement, and implementation of management plans supporting the Project.
741. In addition to the management plans, and to support the integration of cultural values into the Project other recommendations in the Iwi Engagement Report include:
- (a) **Ongoing partnership:** Confirm the continuation of established partnerships with mana whenua, including ongoing engagement and collaboration throughout the development and implementation of the Project.
 - (b) **Cultural Management Plan:** Prepare a Cultural Management Plan, developed in partnership with mana whenua, to set out how cultural values, engagement processes, and ongoing involvement will be provided for over the life of the Project

B7.13.3 Conclusion

742. In conclusion the Project will be undertaken within an area with known cultural values, but potential impacts on mana whenua and the environment will be managed to the extent possible and minimised, as future works will be undertaken in accordance with the proposed mitigation measures set out in the conditions of consent. This includes ongoing partnerships and engagement, enabling mana whenua to be involved with the finalisation of management plans and the preparation of a cultural management plan. These measures will ensure that effects on cultural values can be managed to acceptable levels. Winstone will continue to engage with mana whenua incorporating further measures and mechanisms into the consent conditions and working with mana whenua to ensure their concerns are addressed to the extent practicable.

B7.14 Climate Change and Natural Hazards

743. Section 13(4)(v) requires a description of whether and how the project would be affected by climate change and natural hazards, Schedule 5, cl 7(g) also requires an assessment of effects to consider risk to the neighbourhood, and wider community or environment through natural hazards.
744. This section addresses the effects on natural hazards (including flooding and landslides), taking climate change into account; and transport related emissions arising because of the proposal.

B7.14.1 Flooding

745. Assessments on flood hazard risk have been undertaken by PDP in relation to the proposed stream realignment¹⁵ and the eastern stage 2 culvert and mineral extraction activities located within flood hazard areas¹⁶.
746. The flooding effects associated with the proposed stream realignment channel are set out in section B7.11.2 above. In summary, the proposed channel has been designed to accommodate the 1% AEP flow with climate change to 3.8 degrees of warming and overall, there will be no impact on people and communities, other properties, infrastructure or the environment as a result of flooding and that overall, flooding effects as a result of the proposed realignment, will be less than minor (not significant).
747. The eastern culvert crosses a permanent stream which is mapped as being within the 1% AEP flood plain and identified as being a High and Very High Flood Hazard. The culvert has been designed to convey a 2% AEP (1 in 50-year ARI) flood event. Accordingly, for floods larger than the 2% event, the culvert will restrict the flow of flood waters, causing elevated water levels by up to 0.3m at the culvert. Water levels will then taper off downstream. Given the stream channel is situated within a steep sided gully, the surcharge in water will be contained and will not overtop into the gully or haul road. Rock placement at the downstream end of the culvert will effectively mitigate any potential sedimentation and scouring that might occur over and above such flood events.
748. Overall, due to the steep nature of the channel and as flood levels taper off downstream, the proposed culvert and associated increase in flood waters in events greater than 2%, will not affect people, other properties, infrastructure or the environment and flooding effects as a consequence of the proposed culverts will be less than minor (not significant).
749. Although the western culvert is not situated within a flood hazard area, it is noted that the culvert has also been designed to accommodate the 2% AEP event and that modelling demonstrates any increase in water levels for events greater than 2% AEP will not overtop the gully or haul road.
750. Mangapū Tributaries 1, 3 and 4 (see Figure 10 above) which traverse the Quarry Development Area are shown on Council's Geomaps as being subject to High and Very High Flood Hazards. Additionally, flood prone areas are identified within the Symonds Hill Quarry Pit and to the west of the existing haul road. These are also mapped as being subject to Low, Medium, High and Very High Flood Hazards.
751. It is noted that tributaries and flood prone areas to the west of the existing haul road are proposed to be removed as part of the quarry development and therefore will no longer present any flood hazard

¹⁵ The relevant assessment is contained within the report entitled Mangapū Tributary Realignment – Preliminary Design Effects and Technical Report, dated February 2026 (**Appendix B12.4.6**).

¹⁶ Ibid.

risk. Any stormwater run-off during flood events will be managed via proposed erosion and sediment controls.

752. With regards to the hazards identified within the quarry pit, these mapped hazards do not reflect the existing environment as the land has been heavily modified through engineering design. Due to such modification and existing and proposed stormwater management (such as sediment retention ponds), there is assessed to be no flood risk associated with mineral extraction activities occurring within the Symonds Hill Pit.
753. Overall, it is considered that there will be no risk to people, properties, infrastructure or the environment because of mineral extraction activities within the mapped flood hazard areas and any associated flooding effects will be less than minor (not significant).

B7.14.1.1 Proposed Mitigation

754. Flooding effects will be less than minor (not significant). provided works are undertaken in general accordance with the proposed engineering designs, ESCP and operational maintenance plan for the diversion channel (as outlined section B7.11 above). Proposed consent conditions requiring these measures be implemented are included in **Appendix B12.7**.

B7.14.2 Landslide Susceptibility

755. An assessment of landslide hazard risk has been undertaken by Tonkin and Taylor as part of the Geotechnical Assessment provided in **Appendix B12.4.8**. The report evaluates the risk associated with the Landslide Susceptibility overlays identified on Auckland Council Geomaps. The assessment used by Tonkin and Taylor defines risk as the 'likelihood' of a particular geotechnical hazard, multiplied by its 'consequence'. Low likelihood and low consequence are deemed acceptable, and high likelihood and high consequence are less acceptable. The risk assessment is considered by Tonkin and Taylor to be an equivalent to Appendix 24 Landslide hazard risk assessment methodology of the AUP.

B7.14.2.1 Landslide Hazard Risk

756. As assessed and discussed in section B7.9.2 above, there are a number of landslide or instability risks identified within the Quarry Development Area including geological features and known historical landslides and instability. However, due to historic and current site modifications, existing and proposed engineering measures (including slope design), the Geotechnical Assessment concludes that overall, the Quarry Development Area is considered to have a low (acceptable) landslide hazard risk, subject to the implementation of the TARP conditions. Tonkin and Taylor conclude that the mapped landslide risks (on Auckland Council Geomaps) are not representative of actual conditions on site.

B7.14.2.2 Proposed Mitigation

757. Although the landslide hazard risk is considered low, the proposed TARP set out in section B7.9.5 above will apply across the site. The TARP sets out protocols for if ground conditions are discovered that differ from those anticipated.

B7.14.3 Conclusion

758. While the Site is identified as being subject to flood and landslide susceptibility hazards, the proposal has been designed to appropriately accommodate potential hazard risks, taking into account changes in risk because of climate change. Overall, it is considered that the proposed quarry development will not generate significant adverse effects in terms of natural hazard risk.

B7.15 Economic Effects

759. An assessment of the economic effects of the Project prepared by Greg Akehurst and Tom Harris of Market Economics consulting is provided in **Appendix B12.4.4** Economic Assessment. The assessment concludes that the Project will generate significant regional economic benefits. The economic case arises through three principal channels:
- Expenditure required to prepare and operate the expanded quarry;
 - Avoided transport, emissions and social costs from maintaining a proximate source of aggregate for Auckland; and
 - Broader qualitative benefits associated with supply resilience, business continuity and the continued operation of an established quarry in a supply constrained market.
760. The Economic Assessment identifies that Auckland's aggregate market is structurally constrained and already relies on imported supply from outside the region. In that context, Hunua Quarry is a strategic source of aggregate for Auckland, with established processing infrastructure, freight access and proximity to major demand nodes in South Auckland. The Project secures access to Hunua's greywacke resource for up to 80 years and enables production to increase to a peak capacity of 5.4 million tonnes per annum, which is materially above recent average production. The assessment records that, without Hunua, Auckland's supply gap would widen, and replacement volumes would need to come from more distant sources or from new quarry development. The locational advantage of Hunua Quarry relative to other aggregate sources serving Auckland is shown in Figure 30.

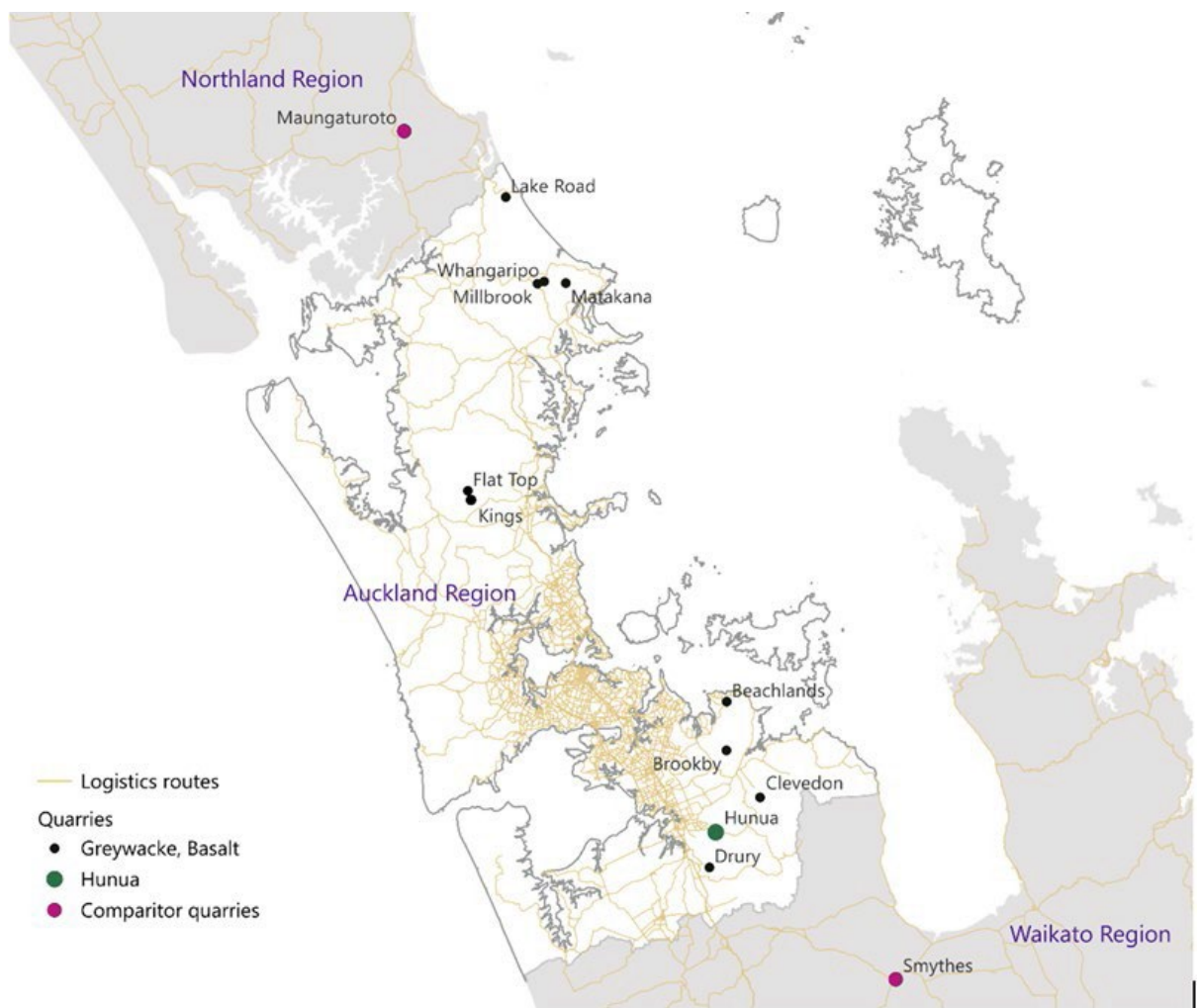


Figure 27: Location of Hunua Quarry relative to key aggregate sources serving Auckland - **Appendix B12.4.4 Economic Assessment, Figure 4**

761.

The Economic Assessment also quantifies the gross economic footprint associated with the Project's expenditure. On an input - output basis, project expenditure is estimated to generate approximately \$116 million in direct value added, \$72.42 million in indirect value added, and \$67.39 million in induced value added, with most of those effects occurring in Auckland. Direct employment associated with that expenditure is estimated at 2,432 job years, averaging approximately 30 roles per year. While those figures represent gross economic activity rather than net welfare effects, they show the scale of the Project's economic footprint and the breadth of sectors affected by the expenditure programme. The broader expenditure-related economic effects of the Project are illustrated in Table 32.

Table 32: Reproduced from **Appendix B12.4.4 Economic Assessment, Figure 2 – Contribution to GDP from the development of the Project (\$m NPV _{5%})**.

Region	Direct	Indirect	Induced	Total
Auckland	115.9	56.5	51	223.4
Rest of North Island	0	10.1	11.4	21.5
Rest of NZ	0	5.2	4.8	10
Total New Zealand	115.9	71.8	67.2	254.9

762. The strongest quantified economic benefits arise from avoided costs. Because aggregate is a low value, high-volume product, haul distance has a direct bearing on delivered cost and associated externalities. The Economic Assessment identifies weighted average haul distances of 17km from Hunua, compared with 53km from Smythes in Waikato and 136km from Maungaturoto in Northland. On that basis, and using Smythes as the conservative counterfactual, the Project is estimated to avoid between \$329 million and \$447 million in discounted transport costs, \$14 million to \$19 million in social crash-related costs, and \$141 million to \$19 million in emissions-related costs over the appraisal period. In the central scenario, the combined avoided cost is approximately \$501 million relative to Smythes, with materially higher costs avoided if supply were sourced from Maungaturoto.
763. As shown in Table 33 below the most significant quantified benefits arise from these avoided transport, emissions and social costs relative to more distant supply options.

Table 33: Summary of Quantitative Benefits

Cost Category	Low	Mid	High
Transport Savings	\$467	\$478	\$600
Social Cost Savings	\$20	\$20	\$25
Emission Cost Savings	\$206	\$211	\$264
Total Benefits	\$693	\$709	\$889

764. The Economic Assessment further identifies broader qualitative benefits that are economically significant even where they are not fully monetised. These include preserving one of Auckland's major aggregate sources, maintaining competitive tension in the construction materials market, reducing supply chain risk for housing and infrastructure delivery, and supporting the wider economy by ensuring continued access to a foundational construction input. The assessment also records that Hunua is a significant existing business, with annual revenue of more than t \$65 million in recent years, and that the Project enables access to over 266.7 million tonnes of aggregate (under the high production forecast) with an estimated gross resource value of approximately \$6.4 billion at current prices.
765. In addition, the western haul road forms part of the Project's economic and operational benefit. The Economic Assessment records that it will nearly halve the average pit-to-crusher circuit distance,

reduce circuit time by about 33%, improve tonnes delivered per truck hour by about 32%, and deliver material fuel and operating efficiencies. Those productivity gains support the efficient extraction and processing of the resource and contribute to lower delivered costs over time.

766. No significant material adverse economic effects have been identified in the Economic Assessment. To the extent that nearby residents may experience amenity effects such as noise, dust or visual change, those effects are addressed in the relevant specialist assessments and should not be double counted in economic terms. Overall, the Economic Assessment supports the conclusion that the Project will deliver significant regional economic benefits, and material national benefits, by sustaining an established strategic quarry, reducing avoidable transport and emissions costs, and supporting Auckland's construction and infrastructure pipeline over the long term.

B7.16 Subdivision Effects associated with a subsidiary activity on Lot 6 DP 152736 and Lot 2 DP 115598

767. It is proposed to adjust the boundaries between two contiguous lots, increasing 255 Middleton Road from 17.97ha to 21.53ha (an increase of 19.8-percent) and decrease 163 Middleton Road from 53.733ha to 50.17ha (a decrease of 6.6-percent). The rural residential use of 163 Middleton Road is located to the east on the lower cleared portion of the site. Overlays are located over the land subject to the boundary adjustment being SEA, ONL, Natural Stream Management Areas and Quarry Buffer Area, these are unaffected by the boundary adjustment. The applicant has agreed to acquire this piece of land in exchange for a neighbouring landowner approval to assist with mitigating effects on this property. The boundary adjustment will result in further separation of the quarry activity from the boundaries of 163 Middleton Road and if left would result in this portion of the neighbouring site surrounded by quarrying activity. The consents for quarry development and associated works are not sought for this land.
768. The subject land is subject to overland flow path and flood plain however the boundary adjustment would not enable any additional development, given the presence of vegetation protected by way of conservation covenants. The proposal maintains the distance and increases the separation between proposed Hunua Quarry Development and 163 Middleton Road and will not result in any new reverse sensitivity effects. There will be no landscape, rural character and amenity effects as a result of the boundary adjustment. The land subject to the boundary adjacent is steep, covered with vegetation the land is not identified as highly productive land as mapped on the AUP(OP) and is identified as LUC Class 6 soils and the boundary adjustment will not result in the fragmentation of rural land and its productive potential.
769. Overall, there are no adverse effects that would arise as a result of the boundary adjustment subdivision and it would enhance the separation between the rural residential use of 163 Middleton Road and avoid surrounding this part of the site with quarrying activity. Conditions are recommended to ensure the necessary RMA section 223 and 224 requirements are adhered to and the easements in favour of other properties are maintained.

B7.17 Summary of Effects

770. In summary, the proposed Hunua Quarry Development will generate a number of positive effects. In particular, the development will continue to provide a source of regionally significant mineral resource for the next 80-plus years. The development and operation of the Hunua Quarry is essential to provide a local, high-quality, reliable supply of aggregate materials, reducing potential cost and delays for future infrastructure and development projects that deliver significant regional benefits. It is also positive for climate change mitigation, as demonstrated by the emissions cost savings attributable to shorter haul distances relative to counterfactual sources. Every tonne of aggregate that Auckland sources from Hunua rather than Waikato or Northland involves fewer heavy vehicle kilometres, lower fuel consumption and lower carbon emissions. Over the lifetime of the consent, this sums to a significant emissions saving. Additionally, the proposed ecological management approach will overtime provide positive terrestrial and freshwater outcomes.
771. As discussed above, it is considered that the effects relating to geology, air quality, groundwater, erosion and sedimentation, ground contamination, archaeology, natural hazards and climate change, noise, vibration and traffic will be less than minor (not significant). This has been achieved through careful and considerate design of the quarry footprint and the contextually sensitive, best-practice management and mitigation measures offered as conditions of consent.
772. With regards to landscape character and visual amenity, due to the location of the aggregate resource, the Project will result in some unavoidable landscape, natural character and visual effects. However, the proposed revegetation and rehabilitation measures will progressively restore vegetative patterns and soften engineered landforms, contributing to long-term landscape cohesion and ecological connectivity across the wider landscape. At completion the local scale overall landscape effects will be reduced to the extent that these will no longer be significant. At the broader landscape management area scale landscape effects are assessed as not significant during operation and at completion (following mitigation).
773. The Project will be undertaken within an area with known cultural values, and Winstone has engaged with Mana Whenua. It is proposed to manage potential impacts on mana whenua values through ongoing partnerships and engagement, enabling mana whenua to be involved with the finalisation of management plans and the preparation of a cultural management plan. These measures will ensure that effects on cultural values can be managed to acceptable levels.
774. The Project results in 1,200m of stream loss and 0.44ha of natural inland wetland removal. However, given aggregate extraction can only take place where the raw material is found naturally, some adverse ecological effects (both terrestrial and freshwater) are unavoidable. In recognition of that, a key component of the proposal is the comprehensive ecological management package. This includes the realignment of some 571m of new stream length to remedy stream loss; the implementation of an Aquatic Fauna Salvage and Relocation Plan to minimise and mitigate potential adverse effects as a result of impeded fish passage and stream diversion; and providing ecological offset through creation of new habitat through additional riparian planting, pest management and improving connectivity of streams in watercourses on identified sites. With regards to terrestrial ecological effects, the ecological management package addresses the loss of 44.46ha of indigenous forest, scrub and associated terrestrial fauna habitat through revegetation at several sites and a comprehensive pest management strategy. The implementation of the proposed Lizard Management Plan will assist in mitigating potential effects that could arise during vegetation removal, as will procedures to check trees for nesting birds and roosting bats. The overall outcome is that all significant impacts on ecological values resulting from the proposal are addressed through the

comprehensive ecological management package, management plans and conditions of consent to achieve an overall outcome of less than minor adverse effects (not significant).

B8. Conditions

B8.1 Proposed Conditions

775. In accordance with Schedule 5, Clause 5(1)(k), Winstone proposes a suite of key proposed conditions (**Appendix B12.7**). The conditions include the preparation of management plans, mitigation measures and environmental triggers.
776. The conditions proposed by Winstone capture the key mitigation measures and management plans addressed in the specialist reports and assessment of effects. These draft conditions are intended to support the conclusions in the specialist assessments, and to provide certainty to the Panel that all environmental issues can be appropriately managed and effects on the environment will be avoided, remedied, mitigated, offset or compensated. The conditions have been structured broadly by specialist area and organised to ensure they are clear for operational staff to implement.

B8.2 Monitoring and Mitigation Measures

777. 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.
778. This application is supported by a range of technical reports that have assessed the potential adverse impacts that may result from the Project including on ecological values, landscape values, human health as a result of RCS, and on bore owners as a result of drawdown effects. Consequently, the scale and significance of some adverse impacts is such that monitoring is required and the technical experts have recommended the implementation of measures to avoid, remedy or mitigate actual and / or potential adverse effects on the environment. These recommendations have informed the suite of consent conditions included as **Appendix B12.7** to this application, which clearly set out the performance and environmental standards that must be met including through the proposed management plans. The management plans will be prepared by the appropriately qualified and experienced persons and be certified by Auckland Council as the relevant regulatory authority to ensure that the relevant standards will be achieved. Ongoing monitoring and compliance will confirm that these standards continue to be met/achieved throughout the life of the Project.

B8.2.1 Measures Proposed

779. The key measures proposed by Winstone Aggregates to manage identified effects are set out in Table 34 below. They include:
- The implementation of, and adherence to, monitoring of stream flows and quality, volumes and quality of water captured, water usage rates, and rainfall;

- The monitoring of adjacent private bores and implementation of a Groundwater Monitoring and Contingency Plan, as necessary;
- The augmentation of flows in Waipokapū and Mangapū Streams including the realigned tributary at locations upstream of the Project Site;
- The implementation and adherence to a suite of ecological management plans prepared as part of this substantive application, including for managing effects on lizards and the management and control of plant and mammalian pests;
- Extensive measures to offset and compensate for residual effects on terrestrial and wetland ecological values, including an ecological restoration and habitat enhancement programme that will be protected in perpetuity that includes wetland enhancement and planting areas located in Focu Areas A (Hunua Quarry and environs) and Focus Area B (Meremere Quarry) and within land owned by Auckland Parks;
- The planting of riparian vegetation along stream margins, re-establishing connectivity and linkages to and between reaches of existing watercourses, and removal of willows from reaches of streams and rehabilitation with native riparian vegetation along the Waipokapū Stream tributary, Meremere Quarry Stream and Mangatawhiri Stream;
- Accordingly, for the loss of a total of 0.44 ha of wetland, a minimum of 2.4 ha (full offset calculation) will be enhanced and planted;
- This pest management approach will increase the success and quality of ecological outcomes and is a beneficial effect of the integrated package of actions. Enhanced pest management actions will be implemented across Winstone's existing management area. (Hunua Quarry) and proposed new pest management will be undertaken across the enhancement areas at Meremere Quarry;
- Implementation of best-practice erosion and sediment control measures during site construction/enabling works and operational works;
- Limits on the generation of noise, vibration and dust;
- Upgrade to the Hunua Road to minimise impacts of increased traffic generation on the safe and efficient operation of the road;
- The implementation of an Accidental Archaeological Discovery Protocol;
- The implementation of a Contaminated Site Management Plan to manage earthworks involving contaminated soil;
- Design and planting to mitigate landscape impacts and support ecological offsets and restoration;
- Require the continuation of established partnerships with mana whenua (who want to be involved), and the fostering of new relationships where appropriate, including ongoing engagement and collaboration throughout the development and implementation of the Project. To implement this, the proposed conditions require the Consent Holder to invite hapū with mana whenua to facilitate and operate an Kaitiaki Forum with respect to the Project. The purpose of the forum is to work collaboratively with mana whenua and facilitate feedback on detailed design plans; maintenance requirements associated with completed infrastructure; inform the preparation of any of the Monitoring or Management plans and ongoing cultural and environmental engagement on any other matters relating to the Project. It will also facilitate the appropriate tikanga and kawa (customary practices and protocols) being applied throughout the design, construction, and operation of the Project.

Table 34: Recommended mitigation and monitoring

Actual or potential Effects	Recommended Mitigation/ Management	Recommended Monitoring/Future Action
Potential effects on matters of importance to mana whenua and their relationship with ancestral lands and water.	Provide for mana whenua involvement, through a Kaitiaki Forum, for the development, refinement, and implementation of management plans supporting the Project and facilitate the appropriate tikanga and kawa (customary practices and protocols) being applied throughout the design, construction, and operation of the Project.	Certification processes to ensure final management plans have had mana whenua involvement.
<i>Surface Water Quantity Effects</i>		
Effects on the Stream Baseflow within the Regional Groundwater. Loss of flow into Waipokapū and Mangapū Streams due to pit dewatering. Effects of the Proposed Stream Realignment on the tributary to Mangapū Stream.	Augmentation of flows in the Waipokapū and Mangapū Streams if low flows are reduced by more than 5% to minimise risks to ecological values.	Monitoring and reporting of pit groundwater inflow to the pit, and discharge of groundwater and surface water to Mangapū Stream. Monitoring of stream flows in Waipokapū and Mangapū Streams and the realigned tributary.
<i>Groundwater Quantity Effects</i>		
Potential effects on groundwater users.	Implementation of the measures in the Groundwater Monitoring and Mitigation Plan, if water levels within private bores are greater than seasonal variation + 5 metres.	Monitoring bores and piezometers to understand groundwater pressures and groundwater levels, including seasonal variations.
<i>Surface Water Quality Effects</i>		
Discharges to Waipokapū and Mangapū Streams.	The implementation of an Erosion and Sediment Control Management Plan prepared in accordance with the Auckland Council Guideline Document GD05: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region (2016) (GD05). This will be updated on an annual basis. Implementation of the Stream Realignment Management Plan to manage erosion and sediment effects as well as ensure bank and channel stabilization. The Plan will also include management of contaminants to water during construction of the stream channel.	Ongoing water quality monitoring (suspended solids, turbidity and where a sediment retention pond is chemically treated, pH) in Waipokapū and Mangapū Streams. Ongoing monitoring and recording of rainfall data. Incident response in relation to an unauthorised sediment discharge shall be undertaken. In relation to erosion and sediment control, an incident is defined as: Discharges from non-stabilised areas that are not treated by erosion and sediment control measures as required by the ESCP; • Failure of any erosion and sediment control measures; • Failure of any temporary stream diversion; and/or Any other incident, which either directly or indirectly causes, or is likely to cause, adverse ecological effects in any waterbodies, that is not authorised by a resource consent. Incidents will primarily be identified by site observations by quarry staff and as a result of specific environmental and erosion and sediment control inspections undertaken by an appropriate Winstone representative. An incident may also be identified as a result of the monitoring undertaken, through complaints, or stakeholder feedback. An internal incident report will be prepared (within 5 working days). As soon as practicable after an incident, the following recommendations should be made:

Actual or potential Effects	Recommended Mitigation/ Management	Recommended Monitoring/Future Action
		Determine the immediate actions to be taken to ensure compliance with the relevant management plan(s), as soon as possible Corrective actions to address root causes shall be assigned and actioned as soon as practicable, taking into account health and safety. If required, liaise with Auckland Council to establish what remediation or rehabilitation is required and whether this is practicable to implement. Additional monitoring may be required as a result of an incident, and changes may be required to the certified ESCP. Any such changes will be made in accordance with the conditions of consent(s).
<i>Groundwater Quality Effects</i>		
Impacts on regional groundwater quality and surrounding bore owners.	Annual sampling of Bore HUN14/8 (Coal Mine Bore) and the Symonds Hill Sump. Testing of the augmentation flow discharge to Symonds Stream and Hays Stream; and in the receiving Symonds Stream and Hays Stream, immediately upstream and downstream of the discharge points.	Samples must be collected and analysed in accordance with APHA "Standard Methods for the Examination of Water and Wastewater (latest Edition) or the equivalent as approved in writing by the Council.
<i>Terrestrial Ecology and Wetland Effects</i>		
Impacts to terrestrial habitats including wetlands from vegetation clearance associated with the development of Symonds Hill Pit including the unavoidable loss of 44.46ha of indigenous vegetation and 0.44ha of wetlands.	Adherence to an Ecological Management Plan that specifies details of the proposed ecological enhancement and management for each of the Focus Areas: Hunua Quarry and environs), Meremere Quarry and within land owned by Auckland Parks. The Ecological Management Plan will also guide the extensive offset planting and the compensation packages, supported by the Lizard Management Plan, the Stream Realignment Management Plan, the Aquatic Fauna Salvage and Relocation Plan and the Pest Management Plan. Adherence to the Ecological Management Plan that will identify areas of proposed planting, species mixes, plant spacing, density and layout, plant size and planting methods, and maintenance requirements.	Annual audit and reporting of the performance and maintenance of planting required by the Ecological Management Plan.
Impacts to lizards from vegetation clearance associated with the development of the Symonds Hill Pit.	Adherence to the Lizard Management Plan which includes: Methodology for salvage of lizards prior to vegetation clearance commencing; Protocols in the event of accidental lizard injury/ death or discovery of Threatened species; Details of relocation sites including provision of additional habitat features. The proposed lizard management to capture and salvage lizards is focused on the mature kānuka forest wherein elegant geckos have been recorded previously, as well as higher quality native forest habitats and edge habitats that may be occupied by native skink species. Potential effects on non-threatened lizard fauna can be mitigated and minimised through salvage of individuals within the identified potential habitats and replacing the extent of habitat removed within the wider Project Site at the completion of mining.	Post-release monitoring will be triggered if any elegant geckos are translocated, or more than 10 of any other lizard species are translocated. The condition and suitability of the soft release pen will be assessed quarterly. Monitoring will include annual repeat surveys using methods such as live traps, artificial retreats and visual searches (but will not include destructive searches). Monitoring will have the objective of assessing population persistence and breeding (i.e. gravid females, or juveniles present in the population) for up to 3 years following release. If translocated geckos are not detected for two consecutive monitoring rounds, surveys will be carried out twice per year (in October and February) with double the search effort for a further two years. If translocated geckos are still not detected, the translocation will be assumed to have failed, and a penalty fee will apply.

Actual or potential Effects	Recommended Mitigation/ Management	Recommended Monitoring/Future Action
Competition of pest plant and animal species with native species affecting rehabilitation success.	Adherence to a Pest Management Plan that will update and build upon the existing programme (Hunua Quarry site), incorporate new enhancement areas (Hunua, Auckland Parks land and Meremere sites) and align with the 8 stages of the Symonds pit development. The approach aims to gain efficiencies, improve pest management outcomes, establish defendable pest-suppressed areas and improve ecological connectivity for indigenous flora and fauna between the two large SEAs to the north and south of the Hunua Quarry landholding over the long term.	Annual pest and weed control monitoring and reporting. The proposed pest management programme will be a long-term project with multiple stages and phases spread out over many years. Therefore, pest management will employ a flexible and nimble adaptive management approach with regular revisions, embracing advancements in pest management and remaining up to date with best practice, guidelines and protocols.
<i>Aquatic Ecology Effects</i>		
Loss of freshwater values in the tributary to Mangapū Stream that will be realigned.	Adherence to the Stream Realignment Management Plan, which details planting of margins of the realigned stream and ecological enhancements, such as riffles, pools and boulders to increase hydrologic variation.	Monitoring aquatic colonisation and values detailed in the Stream Realignment Management Plan. This will occur immediately following the livening of the realigned channel and inspection should be undertaken by a suitably qualified Freshwater Ecologist to ensure that the realigned channel is functioning as intended. Ecological Monitoring of the stream channel will then be undertaken annually for five years post-livening, and again at Year 10 to ensure the realigned channel is meeting ecological objectives and function. If the objectives and functions are being met, then no further monitoring is required.
Loss of freshwater values in Mangapū tributaries 3 and 4 due to culvert placement.	Adherence to the Aquatic Fauna Salvage and Relocation Plan which will detail the processes for native aquatic fauna (fish and kōura) salvage that are required in several watercourses within the Project Footprint. The locations for the aquatic fauna salvage are expected to be challenging, both at the salvage sites, and in transferring the fauna to the relocation sites. Accordingly, a specific Relocation Event Fish Salvage and Relocation Plan (EFSRP) will be prepared for each location closer to the time of operations, and each EFSRP will provide more detail on how these challenges will be provided for.	Following the implementation of each relocation event, a Summary Report will be prepared. For all species the following will be recorded: • Date, time, location, and method of capture. • Species, size and health. • Location and general habitat of relocation site. • Details of species released at each site. The results of any aquatic fauna captured will be uploaded into NIWA's Freshwater Fish Database. Results will also be provided to the Ministry of Primary Industries, the Department of Conservation as a requirement of the required Permits, and Auckland Council. The summary report will be supplied to Auckland Council within 28 days of the completion of each relocation event.
<i>Landscape, Natural Character and Visual Amenity</i>		
Impacts on landscape values especially in the ONL.	Adherence to Landscape Rehabilitation Strategy and Management Plan to ensure that landscape character and values are appropriately mitigated and rehabilitated (where land is retired) through a phased approach, which aligns with the staging of the quarry programme through planting and landform treatment. The key mitigation measures are set out below. Mangapū Tributary Stream Corridor Planting: Revegetate the realigned Mangapū Tributary stream corridor using staged indigenous planting to enhance the riparian corridor and increase the diversity of habitat and vegetation types along the watercourse. Progressive Quarry Face Rehabilitation and OBDA Planting: Progressively revegetate exposed quarry faces as soon as reasonably practicable throughout all quarry stages (as land is retired), in accordance with Appendix 7: Landscape	Implemented planting must be monitored and maintained for the duration of the Project in accordance with the certified LRSMP.

Actual or potential Effects	Recommended Mitigation/ Management	Recommended Monitoring/Future Action
	Rehabilitation Strategy and Management Plan, to reduce visual effects and reintegrate modified landforms into the surrounding landscape. Wider Landholding Planting: Revegetate other areas within the wider landholding with indigenous species to create a broader pattern of contiguous landcover that will, over time, offset the scale of the quarry expansion.	
Adverse impacts on properties within Viewing Groups: - S1 (610, 798, 802 Ponga Road) (Elevated ridges closest to the existing quarry), - S2 ((714, 720, 721, 728, 736, 744, 745, 769, 777, 781, 794, 806, 822, 831 850, 855, 872, 879, 894, 914, 916 Ponga Road) (Elevated dwellings north of Ponga Road), - W1 (608, 612 Ponga Road, 52, 68, 73, 74, 78, 80, 144, 154, 158, 163, 175, 181, 191, 215 Judge Richardson Drive) (Closest western dwellings, varied elevations); and - W2 (3,4, 9, 12, 15, 17, 19, 21, 25, 27, 33, 40 Judge Richardson Drive, 35, 235 Kauri View Road, 400, 484, 498, 502, 506, 510, 528, 534, 544, 546, 548, 555, 581, 600, 601, 604, 606, 616, 620, 624, 625, 630, 634, 640, 645, 647, 649, 650, 660, 676, 684, 690, 693, 696, 700, 705, 706, 717 Ponga Road, 63, 65, 71, 79, 85, 89, 530, 534, 538 Coal Mine Road) (Elevated western dwellings slightly further from the Site).	The Applicant will offer to undertake offsite mitigation planting on affected properties in consultation with landowners. Where landowners elect to participate, a suitably qualified NZILA Registered Landscape Architect will visit the property to work with the landowner to identify appropriate mitigation planting measures within their property.	Planting will be implemented by Winstone and maintained by the landowner.
Construction Noise and Vibration.	Construction works will be in accordance with New Zealand Standard NZS 6803:1999, Construction noise standards in E25.6.27 in the AUP and the construction vibration standards in E25.6.30 in the AUP.	Construction noise will be monitored periodically as set out below and in response to any reasonable complaint: Stage 2 – during construction works associated with the stream alignment. Periodically throughout the life of the quarry to check compliance with construction noise limits. All construction noise will be measured and assessed at 1 m from the façade of any occupied building (or a suitable proxy location) in accordance with NZS 6803:1999. All vibration must be measured and assessed at the foundations of the subject building in accordance with DIN 4150:2016 (or as otherwise directed by the Standard).
Operational Noise and Vibration.	Adherence to an Operational Noise Management Plan that will contain: roles and responsibilities for the implementation of the ONMP the activities and noise sources at Hunua Quarry the relevant noise and vibration limits the neighbouring receivers mitigation measures and all operational restrictions required to ensure that the relevant noise and vibration limits are complied with procedures for undertaking noise and vibration measurements procedures for communicating with the neighbours and managing any noise complaints corrective action measures	Monitoring will be undertaken in accordance with NZS 6801:2008 Acoustics – Measurement of environmental sound and NZS 6802:2008 Acoustics – Environmental noise. Operational noise monitoring will be undertaken at the following times (as a minimum): - Stage 1 – within 6 months of commencement. - Stage 4 – when operational activities are within 400 m of the nearest receiver. - Stage 7 – when operational activities are within 400 m of the nearest receiver. - Stage 8 – when operational activities are within 400 m of the nearest receiver.

Actual or potential Effects	Recommended Mitigation/ Management	Recommended Monitoring/Future Action
	provisions for updating the ONMP to adapt to any changes in the receiving environment or any material changes to the quarry vehicle fleet and machinery Procedures for ensuring that the use of any mobile crushing plant in the Symonds Hill pit is enclosed, screened, or otherwise operated to ensure that it does not exceed a reference noise level of 81 dB LAeq(15 min) at 10 m. Application of one noise standard that applies to all adjoining properties. Tonal reversing alarms (beepers) must not be used on quarry-based machinery. Alternatives without tonal characteristics such as broadband reversing alarms (squawkers) will be permitted. A crusher will occasionally be used at the pit floor, and an acoustically rated shed or enclosure will be used to reduce the noise emissions by at least 10 dB.	Periodically throughout the life of the quarry to check compliance with operational, construction, and blasting noise limits. In response to any reasonable complaint received by Auckland Council or made directly to Hunua Quarry. To test the noise levels generated by new plant, machinery, or vehicles. To test the effectiveness of mitigation implemented for compliance with the noise limits. Vibration must be monitored in response to any reasonable complaint. All vibration must be measured and assessed at the foundations of the subject building in accordance with DIN 4150:2016 (or as otherwise directed by the Standard).
Effects of vibration on amenity values during blasting activities.	All blasting at Hunua Quarry must comply with the following overpressure and vibration limits: Overpressure generated by explosives must comply with a limit of 128 dB LZ_{peak} when measured at the notional boundary of any dwelling outside the Special Purpose – Quarry Zone. Overpressure must be measured in accordance with the guidance of Appendix J Ground Vibration and Airblast Overpressure of AS 2187.2:2006 Explosives—Storage and use, Part 2: Use of explosives. Vibration generated by blasting activities must comply with the limits set out in the German Standard DIN 4150-3 2016: Vibration in buildings – Part 3 Effects on structures when measured and assessed in accordance with the Standard. All blasting is subject to the following restrictions except where it is necessary for safety reasons: Blasting must only take place between 9:00 am and 5:00 pm on Monday to Saturday. The number of blasts over any calendar fortnight must not exceed an average of two per day. A siren must be used prior to blasting to alert people in the vicinity.	All overpressure (blasting noise) must be measured and assessed at the notional boundary of an adjoining dwelling in accordance with the guidance of Appendix J of AS 2187.2:2006. Blast noise monitoring must be undertaken at the following times (as a minimum): • Stage 1 – within 6 months of commencement. • Stage 4 – when operational activities are within 400 m of the nearest receiver. • Stage 7 – when operational activities are within 400 m of the nearest receiver. • Stage 8 – when operational activities are within 400 m of the nearest receiver. Periodically throughout the life of the quarry to check compliance with blasting noise limits. In response to any reasonable complaint received by Auckland Council or made directly to Huna Quarry. To test the effectiveness of mitigation implemented for compliance with the noise limits. Vibration must be monitored in response to any reasonable complaint. All vibration must be measured and assessed at the foundations of the subject building in accordance with DIN 4150:2016 (or as otherwise directed by the Standard).
<i>Contaminated land</i>		
Effects on people and the environment resulting from the disturbance of contaminated land.	Adherence to Contaminated Site Management Plan. A DSI will be undertaken prior to works occurring in the stockyards (Stages 7 and 8).	If contaminated materials or soils are discovered as part of the DSI which require the preparation of remediation, a Remediation Action Plan (RAP), it must be prepared at least 6 months prior to the start of remediation work in Stages 7 and 8. If a RAP is not required, within three months of the completion of earthworks in Stages 7 and 8, a Works Completion Report must be submitted to the Council for review and certification.
<i>Air Quality</i>		
Dust discharge affecting the amenity on surrounding rural-residential properties and ecological values.	Implementation and adherence to an Air Quality Management Plan (AQMP) to minimise the discharge of dust beyond the boundary of the Site as per Appendix B12.8.1. Measures to minimise dust may include:	Daily monitoring of:

Actual or potential Effects	Recommended Mitigation/ Management	Recommended Monitoring/Future Action
	overburden removal is either not carried out during particularly dry periods, or if it is necessary to do so use appropriate management and mitigation techniques such as watercarts to wet the ground. Frequent watering dry, exposed surfaces where discharges of dust are likely to arise; Restricting vehicle speeds around the Site; Maintaining unsealed surfaces of vehicle routes; wheel washing facilities at the Site exit; The access road will be swept, washed or vacuum brushed, as appropriate, to ensure that there is no tracking onto Hunua Road; Spillage from trucks will be minimised by not overloading or otherwise incorrectly loading trucks; Locating and maintaining the height stockpiles to minimise potential wind-entrainment; and Ensuring drop heights of material are kept to a practicable minimum; Re-vegetating or stabilising exposed areas as soon as practicable; and, Housing the main processing plant to contain the potential effects of noise and dust; Covering all potentially dust generating conveyors; Spray bars at potentially dust generating material transfer points; and, Mist sprays beneath all crushers; Winstone employed drivers are generally required to cover loads which leave the site.	- meteorology (wind speed, wind direction, temperature, and rainfall) in the vicinity of the Site must be undertaken; - presence of dust especially on and around stockpiles and exposed, unstabalised surfaces - Weekly monitoring of watering systems. Continuous monitoring of TSP with actions taken to reduce levels if they exceed 100 µg/m³ as a 24 hour rolling average at the Main Gate and 80 µg/m³ as a 24 hour rolling average at the Symonds Hill and Ponga Road monitors. Undertake a Respirable Crystalline Silica (RCS) Monitoring programme to - Monitor baseline RCS concentrations for at least three (3) months prior to Stage 1 of the project commencing; - Monitor for 12 continuous months following Stage 1 of the project commencing; - Be designed to assess compliance of 3 µg/m³ annual average RCS concentration at any nearby dwelling. The findings of the monitoring will be included in a report and submitted to AC within 20 working days of the completion of the monitoring.
<i>Archaeology</i>		
Accidental discovery of unknown historical and archaeological items and material.	Earthworks and overburden removal in Stages 1-3 shall be undertaken in accordance with an Archaeological Authority and an Archaeological Management Plan. Earthworks and overburden removal in later stages are to be managed either through an archaeological authority obtained under the HNZPT, or the Accidental Discovery Protocol rule in the AUP.	All contractors briefed on the accidental discovery of archaeological materials / human remains in accordance with the Archaeological Management Plan.
<i>Stability</i>		
Impacts on the health and safety of workers during extraction and on adjoining property owners and future quarry users.	Trigger Action Response Plan (TARP) to ensure the landslide hazard risk does not exceed the following limits: - R1 or R2 beyond the Site boundary; and - R3 within the Site boundary where achieving R1 or R2 is not practicable.	Staff to monitor and be aware of unexpected ground conditions.

B9. Statutory Assessment under the RMA

B9.1 Resource Management Act 1991 s104(1)(a) and (b) RMA

B9.1.1 Section 104(1)(a) – Actual and Potential Effects on the Environment

780. The proposed quarry expansion covers a range of activities. These activities will occur during both the construction and operational phases of the Project and may result in actual or potential effects on the environment which need consideration and assessment under section 104 of the RMA. For the purpose of completing the section 104 assessments, the identification of relevant effects (as proposed to be mitigated or off-set) are comprehensively assessed in Section B7 of the AEE and Section 8 identifies proposed monitoring and mitigation measures.

B9.1.2 Section 104(1)(ab) of the RMA – Measures proposed for ensuring positive effects on the environment to offset and compensate for any adverse effects on the environment

781. Under section 104(1)(ab) of RMA, a decision maker must consider the positive effects on the environment to offset or compensate for any adverse effects on the environment that will result from the proposed activity.
782. The application includes a comprehensive ecological offset and compensation package as described in the Ecological Assessment in **Appendix B12.4.5** and summarised in sections B2.3.7, B7.2 and B8.2 of this application. The range of actions proposed to address ecological effects includes:
- Revegetation at a range of offset sites (82ha in area) and comprehensive pest and weed management (over 266ha area) to offset and compensate for the removal of indigenous vegetation, wetland and fauna habitats;
 - Fauna survey and salvage/relocation protocols during vegetation clearance to avoid impacts on native birds and bats and to minimise injury and mortality to lizards;
 - Realignment of the Mangapū Stream Tributary (541m length) to remedy the removal of the existing channel;
 - Flow augmentation to remedy effects of dewatering on local watercourses;
 - Riparian restoration and enhancement to offset and compensate for the loss of stream length as a result of quarrying, including increased watercourse length created from replacement of farm ponds and other connections;
 - Willow removal to enhance aquatic values;
 - Wetland enhancement and restoration to offset for the loss of wetland areas as a result of quarrying;
 - Aquatic survey and salvage protocols prior to and during stream works to avoid and minimise impacts on native fish and koura.

783. Subject to the proposed comprehensive ecological management approach, it is concluded that adverse effects on ecological values will not be significant. All adverse ecological effects can be avoided, remedied, minimised, offset or compensated, through a range of approaches.

B9.2 Relevant Provisions of Planning Documents

B9.2.1 Introduction

784. This section of the application is provided in accordance with clauses 5(1)(h), 5(2) and 5(3) of Schedule 5 to the FTAA.
785. An assessment of the activity is required against relevant provisions of the following documents provided in Schedule 5, clause 5(2) of the FTAA:
- (a) A national environmental standard.
 - (b) Other regulations made under the RMA.
 - (c) A national policy statement.
 - (d) A regional policy statement or proposed regional policy statement.
 - (e) A plan or proposed plan.
 - (f) A planning document recognised by a relevant iwi authority and lodged with a local authority.
786. An assessment of the Project against these planning documents is set out in the following sections, and a detailed assessment of the Project against the RPS and AUP is attached at **Appendix B12.9**.

B9.3 Objectives and Policies Approach

787. The detailed assessment of relevant AUP objectives and policies in **Appendix B12.9** is structured by chapter rather than grouping activities together to ensure that nuances and differences between the RPS, the district wide and zone provisions are not lost. The following assessment provides a summary of this assessment, with policies generally addressed as a set enabling the intended outcomes sought by the policies to be addressed.

B9.4 National Environmental Standards

788. National Environment Standards prescribe standards for environmental matters in accordance with section 43 of the RMA. Each local authority must enforce the National Environmental Standards.
789. Where specified, a local authority can impose stricter or more lenient standards than those set out in a National Environmental Standard. The relevant National Environmental Standards are set out below.
790. Overall, the proposal requires consent under a number of National Environmental Standards as set out in Section B9.4 and in **Appendix B12.9**. These are included and assessed within this application and the Project is able to meet the requirements set down to enable the grant of consent.

B9.4.1 National Environmental Standards for Contaminated Land 2011

791. The Resource Management Act (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES-CS) came into effect in 2012. The NES applies to assessing and managing the actual or potential adverse effects of contaminants in soil on human health from five activities, including soil disturbance. The NES-CS seeks to ensure that land affected by contaminated soil is appropriately identified and assessed before it is developed. If necessary, affected land will need to be remediated or the contaminants will need to be contained.
792. The DSI concludes that the NES-CS does not apply to the majority of the proposed pit development area i.e. Stages 1 to 6. However, the concentration of zinc in two soil samples and detection of various PAH and/or TPH compounds in 13 soil samples exceed the published background concentrations of non-volcanic soils in the Auckland region. Therefore, the disturbance of soils within the stockyard areas require consent as a Controlled Activity under the NES-CS and a Contaminated Site Management Plan needs to be prepared as any contaminated soil will need to be removed from the Site and disposed of at an appropriate disposal facility licensed to accept the reported level of TPH C10-C14. However, given that works in the stockyard are proposed during Stages 7 and 8 (over 35 years from now), and existing activities in this area are likely to continue, further contamination testing will be undertaken prior to works commencing in Stage 7 and a Site Management Plan will not be provided to Auckland Council for certification until 6 months prior to any proposed excavation. This requirement is subject to a proposed condition of consent.

B9.4.2 National Environmental Standards for Freshwater 2020

793. The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F) came into force in 2020 and is relevant as several natural inland wetlands have been identified within and in proximity to the Symonds Hill Pit development area and the proposed works involve reclamation of a stream tributary. Quarrying activity is proposed within, or within 100 m setback, of natural inland wetlands and within the beds of streams. Accordingly, Winstone Aggregates is seeking resource consent as a discretionary activity under Regulation 45A(1)[2]-(4) and 57 of the NES-F.
794. In accordance with Regulation 45A(6) of the NES-F, a resource consent must not be granted unless the consent authority is satisfied that the quarrying activity will provide significant national or regional benefits; that there is a functional need or an operational need for the quarrying activity in that location and that the effects management hierarchy has been applied.
795. In relation to significant national or regional benefits, other parts of the AEE demonstrate that such benefits will be achieved.
796. In terms of functional need or operational need for quarrying in this location, the quarrying activity has a clear functional need to locate where there is identified and accessible resource, as well as an operational need to locate in the vicinity of existing infrastructure such as the processing facilities. The removal of vegetation, earthworks and 'reclamation' of a tributary of Mangapū Stream and other stream works form part of the quarrying activities, as described in Section B3, and there will be impacts on freshwater values.
797. The effects management hierarchy has been applied to all the works that are proposed to impact on freshwater values and has been assessed as part of the Ecological Report (**Appendix B12.4.5**). Ecological effects in relation to freshwater values are avoided where possible and remedy of some effects is achieved through the realignment of part of the Mangapū Tributary. Residual adverse effects on freshwater values will be offset and compensated for by a range of methods including aquatic

fauna salvage and relocation, enhancement and restoration of other riparian areas, and provision of comprehensive pest management (as described in sections B3.10.5.3 and B7.2.3.3).

B9.4.3 National Environmental Standard for Air Quality

798. The National Environmental Standard for Air Quality (NES-AQ) came into effect in June 2011. The NES-AQ sets out the ambient air quality standards for a number of contaminants for the protection of human health.
799. The NES-AQ Ambient Air Quality Standards (AAQS) only applies at locations where people are likely to be exposed for the entirety of the averaging period. Therefore, the 24-hour average PM₁₀ AAQS applies at the sensitive receptor locations illustrated in Figure 4 of Appendix B12.4.1 but does not strictly apply at the location of the monitor (as it sits within the Site). Monitoring of PM10 undertaken from 27th November 2025 to 27th January 2026 (during dry summer conditions) produced a recorded 24-hour average value of 14 µg/m³, with the maximum being 23 µg/m³. These readings are approximately 25% and 50% of the NES-AQ AAAQ recommended 24-hour average limits for PM₁₀ respectively. As such, no consent is required under the NES-AAQS.

B9.4.4 Resource Management (Measurement and Reporting of Water Takes) Regulations 2010

800. The Project includes an application for a water take permit, which will exceed a rate of 5 litres/second, therefore the Water Take Regulations must be considered. Recommendations set out in the Groundwater Report and Proposed Conditions in **Appendix B12.7** set out the proposed regime for measuring and reporting water use in accordance with these Regulations.

B9.5 National Policy Statements

801. Overall, the Project is consistent with the relevant National Policy Statements, as set out below in more detail. The NZCPS, the NPS-HPL and NS-UD are only addressed in brief in **Appendix B12.9** as they are not directly or are only partially relevant to the Project.

B9.5.1 National Policy Statement for Infrastructure 2025

802. The National Policy for Infrastructure 2025 (NPS-I) sets out policies to enable, recognise, and protect new and proposed 'infrastructure' and 'additional infrastructure', as defined in the RMA and the NPS-I. It aims to give resource consent applicants more certainty and help infrastructure support New Zealand's wider social and economic goals, while still protecting the environment.
803. Of relevance to this Project, it provides for infrastructure supporting activities that may include quarrying. There is no alternative to aggregate and a secure supply of affordable construction materials is essential to timely and cost-effective development and renewal of infrastructure.
804. The Economics Assessment in **Appendix B12.4.4** provides the reasoning for why supporting activities are so important to the timely and cost-effective delivery of infrastructure. In essence, the Auckland market has a deficit of supply and any delays to consenting and 'gearing up' existing quarry activities will mean that aggregate must be transported from outside the region, thereby increasing its cost. This has a direct impact on the down-stream cost of construction. Consequently, this Project will meet the

outcomes sought by the NPS-I in that it will support the cost-effective delivery, maintenance and upgrades of infrastructure in the Auckland region.

B9.5.2 National Policy Statement for Freshwater Management 2020

805. The National Policy Statement for Freshwater Management 2020 (NPS-FM) came into force on 3 September 2020 and provides direction on how local authorities should manage freshwater (including groundwater) under the RMA.
806. At a national level, the 2020 National Policy Statement for Freshwater Management (NPSFM) provides direction on the management of freshwater resources. Following the 2024 amendment of the RMA, and the insertion of new s104(2F), regard must not be had to clauses of the NPS-FM relating to the hierarchy of obligations in respect of the fundamental concept of Te Mana o te Wai.
807. The policies of the NPS-FM that remain for consideration are identified in the full assessment of the Project against the relevant provisions of the NPS-FM is set out in **Appendix B12.9**.

Functional and Operational Need

808. Having particular regard to functional need, investigations have revealed that the area through which the Mangapū Tributary flows contains high quality greywacke that is readily accessible. There is a need to undertake the quarrying and associated activities such as vegetation clearance and stream reclamation (realignment) where the aggregate is located so that it can be accessed.
809. From an operational perspective, it is efficient and cost effective to utilise the existing processing facilities rather than relocating or re-establishing the equipment elsewhere. This would introduce quarry activities into a new location rather than consolidating in this location, where adverse impacts are already being effectively managed. The Project is also vital to the ongoing development of the Auckland region, providing a much needed local, high quality and readily accessible aggregate resource.
810. Overall, it is considered that the Project achieves the relevant policies of the NPS-FM, as:
- Pumped pit water discharged to the Mangapū Stream will be treated to minimise any risk of sedimentation or reduced water quality.
 - Stormwater that discharges through the OBDA and Managed Fill will be treated prior to discharging to land and Waipokopu Stream.
 - The loss of 1,200 metres of the Mangapū Tributary will be remedied in part through the realigned section that will be naturalised with waterfalls to reduce flow velocity and riffles and boulders to create habitats. The residual loss of some stream length, together with impacts on other riparian areas will be offset and compensated for by a range of methods including aquatic fauna salvage and relocation, enhancement and restoration of other riparian areas, and provision of comprehensive pest management (see more detail in sections B3.10.5.3 and B7.2.3.3).
 - Earthworks including those associated with the Mangapū Tributary realignment will be undertaken in accordance with ESC best practice measures.
 - Loss of wetlands will be offset by the reestablishment of some degraded wetlands and the enhancement of other wetland areas.
 - Aquatic fauna survey, salvage and relocation will be used before and during stream works to avoid mortality.

B9.5.3 National Policy Statement for Indigenous Biodiversity 2022 (NPS-IB)

811. The NPS-IB came into force on 4 August 2023 and provides direction to councils to protect, maintain and restore indigenous biodiversity requiring at least no further reduction nationally. The NPS-IB must be given effect to through AC's policies and plans. However, as the Councils have not yet had the opportunity to review their planning documents to implement the NPS-IB, an assessment of the proposal has been made against the objective and relevant policies as set out in **Appendix B12.9**.
812. Overall, it is considered that the Proposal generally achieves the objective and relevant policies and provisions of the NPS-IB and is consistent with the concept of Te Rito o te Harakeke.
813. The NPS-IB cl. 3.11(1)(a)(iii) provides a recognised pathway for use of land for quarrying activities that:
- provide significant national or regional benefit, and
 - have a functional or operational need to be in that particular location, and
 - there is no practicable alternative location.
814. The removal of indigenous vegetation associated with a quarrying activity that provides significant national or regional benefit is provided for in the NPS-IB, and this Project will provide such benefit as determined in the Economics Assessment in **Appendix B12.4.4**.
815. The Resource Report (**Appendix B12.4.12**) provides information on functional and operational need for the proposed quarrying activity to be in this location and the lack of practicable alternative locations.
816. The Project is located where there is access to the aggregate resource and can utilise existing infrastructure that has been established for many years, rather than relocating or re-establishing the equipment elsewhere. There are both functional and operational needs for the quarry expansion to be in this location. It is necessary to carry out vegetation clearance where the aggregate resource is located to allow access and quarrying at that site.
817. Relocating the quarry elsewhere would introduce quarry activities into a new location rather than consolidating in this location, with potential consequent impacts on an undisturbed area of indigenous vegetation and waterways. As such, it is considered that quarrying activities are necessary within and outside SNAs at the proposed site to enable the quarry expansion to occur and realise its benefits.
818. The Project will provide resources that directly support activities such as infrastructure, construction and flood management that support people's economic and social wellbeing. The proposed protection and restoration actions will achieve overall maintenance and improvement of indigenous biodiversity values, and the proposed actions will maintain and restore indigenous biodiversity while recognising the role of tāngata whenua as kaitiaki and providing for the wellbeing of people and communities by providing much needed aggregate for the region.
819. In the case of quarrying activities that meet the requirements of clause 3.11, the approach to considering adverse effects is to apply the effects management hierarchy, including each step of the hierarchy and the consideration of offsetting and compensation according to principles set out in the NPS. The ecological assessment of the impact of vegetation removal has applied each step of the effects management hierarchy (see **Appendix B12.4.5**) and has carefully considered the applicability of offsets and compensation. The overall conclusion reached by the expert ecologists is that collectively these outcomes result in no net loss of terrestrial, wetland and aquatic habitat extent or values, and positive effects that outweigh adverse effects, equating to a net positive gain, in accordance with aquatic and indigenous biodiversity offsetting and compensation principles

B9.6 Auckland Unitary Plan

B9.6.1 Section 104(1)(b)(v) and (vi) of the RMA - Auckland Unitary Plan (Operative in Part)

820. The AUP is a combined regional and district plan as provided for under section 80 of the RMA and also includes the regional policy statement. An assessment of the AUP is required under section 104(1)(b)(v) and (vi) of the RMA and sch 5, cl 5(2)(e) and (f) of the FTAA. The plan is set out in a clear hierarchy of provisions, beginning with the regional policy statement provisions. These objectives and policies set the high-level framework and give the overview of the issues of the region. The subsequent objectives and policies within the regional and district provisions must give effect to these. In other words, the AUP is deliberately a vertically integrated plan, which is intended to be read and applied as such.
821. A provision-by-provision analysis of the Project against the RPS and AUP is contained at **Appendix B12.9**.

B9.6.2 Section 104(1)(b)(v) of the RMA - Auckland Unitary Plan Regional Policy Statement

822. The AUP RPS is required by sections 59 to 62 of the RMA, to provide an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resources of the whole region. The AUP RPS must also give effect to any national policy statement.
823. The AUP RPS provisions set out a number of issues of regional significance, creating an over-arching framework which is given effect to in the regional and district plan sections of the AUP. The AUP RPS objectives and policies are concerned with managing effects, but also with supporting and enabling regionally significant infrastructure to operate efficiently to support the region's population.
824. Of particular significance to this Project are the following sections of the AUP RPS:
- B3 Infrastructure, transport and energy - transport.
 - B4 Natural heritage – outstanding natural features and landscapes.
 - B7 Natural resources – indigenous biodiversity, freshwater systems, air quality, and minerals
 - B9 Rural environment – rural activities and rural land resource.
 - B10 Environmental risk – natural hazards, climate change and contaminated land.
 - B1.4(5) Issues of significance to Tangata Whenua– recognising the Treaty of Waitangi, and also recognising Mana Whenua values.
825. Auckland Council initiated changes through PC120 on 3 November 2025 to the AUP which includes changes to the AUP RPS. The changes introduced new provisions which seek to better manage the significant risks from natural hazards. Other changes were also promulgated to respond to urban intensification requirements in the RMA.
826. Relevant to the Project are the amendments that are made by PC120 at B10 Environmental risk which provide greater specificity regarding natural hazards, introduces a new risk management framework and applies different policy approaches that are proportionate to the risk present. The provisions that

have been inserted in the AUP RPS support provisions proposed in the Auckland-wide AUP chapters and zones that have immediate legal effect, noting that at the time of submitting the substantive application for the Project hearings for PC120 have not commenced with decisions not due until sometime in 2027.

827. Analysis of the Project against the key RPS themes outlined above, alongside the associated regional plan and district plan provisions of the AUP is provided in Table 35 below. A detailed assessment of the proposal against the specific objectives and policies of the AUP is provided in **Appendix B12.9**.

Table 35: AUP RPS themes outlined and, associated regional plan and district plan provisions of the AUP

Theme	Relevant objectives and policies	Summary comments
Quarry zone and Quarry Buffer Overlay	D27.2(1), D27.3(1), H28.2(1), H28.2(2), H28.3(3), H28.3(4), H28.3(5), H28.3(6), H28.3(7)	The existing Hunua Quarry is zoned as Special Purpose Quarry Zone and currently provides approximately 28% of Auckland's total aggregate production. The Project will provide access to considerable additional resource, albeit some of the works will occur outside the SPQZ including within the Quarry Buffer Overlay and whilst this encroaches upon this 'protective' area, Winstone has purchased surrounding properties to minimise the risk of impacting on adjoining residents. Further, given the availability of established processing plant and ancillary infrastructure that are already authorised and along with overburden disposal areas, the further development of the Hunua Quarry is efficient and will provide an effective long-term resource for Auckland. The works within the SPQZ have been designed to avoid adverse impacts on natural heritage, Mana Whenua, natural resources, and historic heritage as far as possible, but the quarry's location within an SEA and the adjoining ONL makes that very difficult. As such, works will encroach into streams, significant ecological areas, an ONL and could potentially unearth archaeological remains. Accordingly, the Project will be undertaken in accordance with an ESCP, the Stream Realignment Management Plan (Appendix B12.8.7) and an Archaeological Authority and Archaeological Management Plan and the Landscape Rehabilitation Strategy and Management Plan (Appendix B12.8.9). The Project will also result in adverse impacts on biodiversity values. Where these cannot be suitably avoided or mitigated a comprehensive offset and compensation package is proposed. Adverse effects will be internalised as much as possible noting the lack of complaints to date about dust and noise. The Air Quality Management Plan (Appendix B12.8.1) and the ONMP (Appendix B12.8.6) will ensure that activities continue to be managed to minimise external effects. The Transport assessment concludes that the Project will have minimal traffic effects on the function, capacity and safety of the surrounding transport network and the existing site access will be upgraded to include a full right turn bay on Hunua Road (part of the Auckland Strategic Freight Network) to accommodate the increased truck volumes. The Project aligns strongly with SPQZ objectives and policies given their purpose to provide for mineral extraction.
Infrastructure		
Transport	B3.2.1(1), B3.2.2(5), E27.1(1), B3.2.1(1), B3.2.2(5), E27.1(1), E27.3(1)	The Project is an existing activity located on Hunua Road, which is part of the Auckland Strategic Freight Network. The Project will increase the average daily truck movements by approximately 111%, but the Transport Assessment (Appendix B12.4.14) has concluded that there is sufficient capacity to accommodate the proposed increase in truck volumes. However, the Project will result in a net positive gain for the transport network as the existing site access will be upgraded to include a full right turn bay on Hunua Road to accommodate the increased truck volumes. Overall, the Project aligns with the AUP RPS objectives and policies meets the AUP requirements or has been specifically designed to cater for the Quarry operation (e.g. access width).
Mana Whenua		
Recognition of the Treaty of Waitangi	B6.2.1 (1), B6.2.1 (2), B6.2.2 (1), B6.2.2 (2)	Winstone has engaged with Ngāti Tamaoho (who have statutory acknowledgement over the land), Te Ākitai Waiohua (within Area of Interest identified in the Deed of Settlement signed in 2021) and Ngāti Te Āta to discuss the Project. In particular, they participated in workshops on the Mangapū Stream Tributary realignment. During these workshops, Mana Whenua directly contributed to methodologies, and techniques for realigning the tributary along with mitigation and management mechanisms for restoration of the new stream corridor and rehabilitation of the landscape and ecology. Winstone Aggregates will continue to engage with Mana Whenua as kaitiaki as the Project develops to inform ongoing management of the offset programme, rehabilitation works and general development works. It is proposed to establish a Kaitiaki Forum to facilitate this process. The Project meets the intent of the objectives and policies in B6.2. Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation.
Recognising Mana Whenua values	B6.3.1 (1), B6.3.1 (2), B6.3.2 (1), B6.3.2 (2), B6.3.2 (3), B6.3.2 (4), B6.3.2 (6)	Winstone has well-formed and trusted relationships with Mana Whenua, developed over many years. As such, prior to engagement on this Project, it was already aware of Mana Whenua's connections to this place. Engagement only enforced this, and meant that the Project design has been informed and shaped by cultural values. The Project meets the intent of the objectives and policies in B6.3. Recognising Mana Whenua values.

Theme	Relevant objectives and policies	Summary comments
Natural Resources		
Outstanding Natural Features and Landscapes	B4.2.1 (1), B4.2.1 (2), B4.2.2(3), B4.2.2(8), D10.2(1), D10.2(2), D10.3(2), D10.3(5)	The Project will result in adverse landscape effects throughout the 80-year life of the quarry. These effects relate to extensive landform excavation, removal of ridges and hillslopes, realignment of the Mangapū Stream Tributary, and progressive loss of 44.46ha of indigenous vegetation across the active footprint, including areas within the ONL. The nature of the Project means that it cannot protect or maintain the values of the ONL. However, given the need for aggregate in the Auckland region supported by the NPS-I and the efficiencies derived from extending an existing quarry, and because adverse effects on the ONL have been adequately managed, the Project is not an inappropriate activity. Over the long term, progressive rehabilitation, including indigenous riparian planting of Mangapū Stream Tributary, rehabilitation of benches and OBDA with native planting, as well as native revegetation across the offset sites, will gradually soften engineered landforms and re-establish natural vegetation patterns around the quarry margins over time, and will enhance the physical and visual integrity of the Ponga Road ONL, by reducing the landscape effects of the quarrying activity. Overall, the Project is considered to be generally consistent with the objectives and policies that address outstanding natural landscapes.
Indigenous biodiversity	B7.2.1(1), B7.2.1 (2), B7.2.2 (1), B7.2.2 (2), B7.2.2 (3), B7.2.2(5), B7.2.2 (5A), D9.2 (1), D9.2 (2), D9.2 (3), D9.3 (1), E3.2(4), E3.2(15), E15.2(1), E15.2(2), E15.3(1), E15.3(2), E15.3(3), E15.3(4), E15.3(5), D9.2 (3), D9.3 (1), E3.2(4), E3.2(15), E15.2(1), E15.2(2), E15.3(1), E15.3(2), E15.3(3), E15.3(4), E15.3(5)	The Site supports several areas of significant indigenous vegetation and habitats with some areas identified in the AUP as an SEA (which is the equivalent of a SNA), as well as wetland and riparian areas that will be impacted by the Project. The impact on these areas and ecological values has been assessed in the Ecological Assessment (Appendix B12.4.5) and the effects management hierarchy has been applied. Ecological effects are avoided where possible and minimised or remedied where such actions are available (e.g. through the realignment of part of the Mangapū Tributary). Residual adverse effects on indigenous biodiversity are managed primarily through offsetting and compensation with extensive areas of revegetation and restoration proposed as well as comprehensive pest management. Overall, the Project is considered to be consistent with the objectives and policies that address indigenous biodiversity.
Freshwater systems	B7.3.1 (1), B7.3.1 (2), B7.3.1 (3), B7.3.2 (1), B7.3.2 (4), B7.3.2 (5), B7.3.2 (6), B7.4.1(1), B7.4.1(2), B7.4.1(4), B7.4.1(5), B7.4.1(6), B7.4.2(1), B7.4.2(7), B7.4.2(8), B7.4.2(9), B7.4.2(10), B7.4.2(11), B7.4.2(12), B7.4.2(13), B7.4.2(14), D4.2(1), D4.3(1), D4.3(2), D4.3(4), E1.2(1), E1.2(2), E1.3(2), E1.3(4), E1.3(5), E1.3(8), E1.3(11), E1.3(13), E3.2(1), E3.2(2), E3.2(4), E3.2(5), E3.2(7), E3.2(8), E3.2(9), E3.2(13), E3.2(14), E3.2(22), E3.2(23), E3.2(25), E3.3(1), E3.3(2), E3.3(3), E3.3(4), E3.3(5), E3.3(6), E3.3(7), E3.3(10), E3.3(11), E3.3(12), E3.3(13), E3.3(15), E3.3(17)	The quality of freshwater will be maintained by: - Implementing stringent erosion and sediment control measures are set out in the ESC Assessment (Appendix B12.4.7), which have been designed to manage potential sediment discharges to freshwater during the removal of overburden, the construction of haul roads and the stream realignment works, and - Treatment of stormwater and pumped pit water in sediment retention ponds prior to discharge, and - Annual sampling of the production bore HUN14/8 and the Symonds Hill Sump. - Water quality sampling will be undertaken to ensure that the median suspended sediment concentration measured at a downstream location, when compared to upstream does not increase by more than 20% as measured on a quarterly basis. The Groundwater Assessment has determined that there is no change in the predicted total groundwater resource within the greywacke block compared to that already assessed under Consent WAT60152106-A. However, the dewatering of Symonds Hill Pit may reduce baseflow in two streams - the Mangapū and Waipokopu Streams and the realigned stream tributary, so it is proposed to monitor stream MALF and undertake augmentation of stream flows to minimise any risks to the life supporting capacity of the waterways. In addition, dewatering may result in drawdown effects in neighbouring, privately owned bores. Groundwater levels will be closely monitored and measures implemented to address any drawdown effects. Overall, the Project represents an efficient use of water as it will enable the production of aggregate that is a vital resource for the Auckland region, where there is already a supply deficit. Furthermore, water use during quarry activities is very efficient as most water is directed back to the streams through augmentation and very little additional water is required for aggregate processing as the washing process is essentially a closed system whereby water is re-used. The Project is generally consistent with the objectives and policies related to freshwater systems.

Theme	Relevant objectives and policies	Summary comments
Air Quality	B7.5.1(1), B7.5.1(3), B7.5.2(1), E14.2 (1), E14.2 (2), E14.2 (4), E14.3 (1), E14.3 (3), E14.3(5), E14.3 (8), E14.3 (9)	The Hunua Quarry is an existing activity that is located within the Special Purpose Quarry Zone, where a lower level of amenity is anticipated. The SPQZ is characterised as a low air quality environment under the AUP, and the rural zones are a medium air quality environment. Hunua Quarry currently operates under Permit No. 34130, which expires on 29th October 2044. This permit authorises the discharge of contaminants into air primarily dust, from activities associated with the operation of the Hunua Quarry, including vegetation removal: overburden removal; excavating rock; blasting and drilling; crushing, screening storage, and transport of rock; and the operation of a blending plant. The Air Quality Assessment (Appendix B12.4.1) confirms that there have been very few exceedances of the GPG Dust TSP trigger level of 250 µg/m³ for moderately sensitive receptors. Additional PM₁₀ over a two-month monitoring campaign near to the dwellings located on Judge Richardson Drive concluded that the PM₁₀ concentrations did not exceed the 24-hour average NES-AQ limit of 50 µg/m³. In essence, effects on air quality in the surrounding rural environment have been minimal due to the effective dust management measures in place at the Site. While the Project will expand into the Rural Mixed Use Zone, the Air Quality Assessment has determined that if the existing mitigation measures along with stringent dust monitoring are implemented, then existing air quality, as anticipated in a rural zone, will be maintained. As such, the Project will maintain current air quality in the rural area, and is considered to be generally consistent with the objectives and policies that manage air quality.
Minerals	B7.6.1(1), B7.6.2(4), E28.1(1), E28.2(1), E28.2(2), E28.2(4), E28.2(6), E28.2(10)	There is an estimated total demand of approximately 17 million tonnes annually which Auckland's future production is unlikely to meet in the near future and the deficit in supply will widen as the population grows. Hunua Quarry provides approximately 28% of Auckland's total aggregate production and the Project provides access to considerable additional resource. Given the availability of on the established processing plant and ancillary infrastructure that are already authorised and along with overburden disposal areas, the further development of the Hunua Quarry is efficient and will provide an effective long-term resource for Auckland. The Project has been designed and will be undertaken to ensure it will not result in significant adverse effects on the environment as identified in Section B7 of the AEE. All other effects will be managed through the development of comprehensive management plans and conditions. The Project strongly accords with Mineral Extraction objectives and policies.
Rural Environment		
Rural character and, amenity	B9.2.1(3), B9.2.1(4), B9.2.2(1), B9.2.2(3), E14.2(4), E14.3(2), E14.3(3)E14.3(6)E25.3(9)H19.2.1(1), H19.2.1(1), H19.2.2(1), H19.2.3(1), H19.2.3(2), H19.2.4(1), H19.2.4(2), H19.2.4(3), H19.2.5(3), H19.2.5(4), H19.2.5(5), H19.2.6(2), H19.2.6(3), H19.4.2(3), H19.4.3(2)	The Hunua Quarry has been in operation for over 100-years, the development of the Symonds Hill pit is well-established, and these uses form part of the local character. Whilst the Project will necessitate a change in the extent of SEAs, measures seek to avoid where practical and otherwise manage effects on amenity and biodiversity values. Where these cannot be suitably avoided or mitigated a comprehensive offset and compensation package is proposed. It is only proposed to remove vegetation from those areas of SEA that are absolutely necessary to provide access to the resource. Large areas of indigenous vegetation within the Site will be avoided and shall remain and be protected by a covenant and be enhanced through pest and weed management. The loss of areas that cannot be avoided, will be offset and compensated for through a comprehensive offset and compensation programme. The policy framework explicitly recognises that mineral extraction activities are a typical feature of the identified rural zones including the Mixed Rural zone. This is consistent with the current environment that includes established quarries within the wider landscape and supports the continued operation of these. The quarry development area will increase the scale and duration of landform modification locally; however, the rural character effects are largely managed through staging, containment within landform and vegetated elements, and progressive rehabilitation, which collectively reduce the perception of the quarry reading as an uncontained or sprawling element across the hill country. Where the quarry development area interfaces with the Mixed Rural Zone, the re-establishment of native vegetation through the rehabilitation phases assists in maintaining rural amenity by reducing visual contrast, softening edges, and retaining a coherent pattern of vegetated hill slopes that is characteristic of the receiving landscape. Noise, odour, dust, traffic and visual effects will be effectively managed through a range of management plans and mitigation measures. Overall, the Project is consistent with the objectives and policies that address rural character and amenity.

Theme	Relevant objectives and policies	Summary comments
Land disturbance and Contaminated Land	B10.4.1(1), B10.4.2(3), E11.2(1), E11.2(2), E11.2(3)E11.3(1)E11.3(2)E11.3(4), E11.3(5), E11.3(6),E11.3(7), E12.2(1), E12.3(1), E12.3(2), E12.3(3), E12.3(4), E12.3(5), E12.3(6), E30.2(1), E30.3(2)	The majority of the Development Area has been assessed as non-HAIL areas. The areas with actual or potential sources of contamination are limited to discrete areas, generally within Stages 7 and 8. Works within this area will be subject to a Contaminated Site Management Plan and RAP provided to Council at least six months prior to implementation. In summary, the shallow soil in the vicinity of the sampling site PMS08 that cannot be reused onsite will need to be excavated and disposed of at an appropriate disposal facility. Implementation of the recommended management measures will ensure there is low risk to human health and the environment. Land disturbance will be undertaken in accordance with an ESCP (Appendix B12.4.7) and the Stream Realignment Management Plan (Appendix B12.8.7) to minimise the risk of contaminating waterways and adverse effects on aquatic ecology. The measures are set out in section B7.8.3 of the AEE and the ESCP, and stream flows will be augmented to ensure sediment that does enter waterways does not overwhelm the aquatic system.
Environmental Risk		
Natural hazards, and flooding,	B10.2.1(2), B10.2.1(3), B10.2.1(4), B10.2.1(5), B10.2.1(6), B10.2.2(3), B10.2.2(4), B10.2.2(5), B10.2.2(6), B10.2.2(7), B10.2.2(8A), B10.2.2(11A), B10.2.2(13A), B10.2.2(14), B10.2.2(15), B10.2.2(17), B10.2.2(19), E36.3(33), E36.3(35) E36.2(1), E36.2(4), E36.2(5), E36.3(3), E36.3(4), E36.3(16), E36.3(21), E36.3(22), E36.3(25), E36.3(26), E36.3(28), E36.3(29), E36.3(30), E36.3(31)	The Site is identified as being subject to flood plains (aligning with a number of tributaries that traverse the Site) and flood prone areas. PDP has assessed flooding risks for the realigned tributary channel, Stage 2 culverts and activities within areas subject to flooding. The assessments model a range of flood events in accordance with Auckland Council Infrastructure Code of Practice accounts for 3.8 degrees of climate change. A precautionary approach is applied in the risk assessments through the application of a sensitivity checks against significant events (including the 100-year ARI for the stage 2 culverts and an over-design event greater than 100-year ARI for the stream realignment) to ensure overtopping does not occur. For the stream realignment a bund is proposed to ensure any flood flows during significant events do not spill into the pit. Although the proposed stream diversion will increase flood depths by up to 100m in the Mangapū Stream, this will be contained within the steep channel banks. Similarly, the eastern Stage 2 culvert will increase flood depths at the culvert by up to 0.3m (tapering off downstream) however this will be contained within the steep gully and will not overtop the haul road. Modelling indicates negligible increases in flood depths in rural areas. Any potential adverse effects as a result of changes in flood depths arising from the proposal are mitigated through: - designing the Stage 2 culverts and stream diversion channel to account for 100-year ARI events and 3.8 degree temperature increase due to climate change; - the inclusion of stream design features such as rock placement and waterfalls / cascades to assist in managing flow and velocity through the diversion channel; and - the implementation of the proposed ESCP to manage earthworks (including vegetation removal and works associated with the installation of the temporary bridge and Stage 2 culverts) within flood hazard areas. The risk assessments conclude that there will be no impact on people, property, infrastructure or the environment as a result of the proposed quarry development occurring within areas identified as being subject to flooding and that overall the Project is consistent with the Natural Hazards and Flooding objectives and policies.
PC120		
Natural hazards and flooding	B10.2.1(2A); B10.2.1(3); B10.2.1(4); B10.2.1(5); B10.2.1.(5A); B10.2.2(1); B10.2.2(2); B10.2.2(3); B10.2.2(4A); B10.2.2(5); B10.2.2(6); B10.2.2(8A); B10.2.2(11A); B10.2.2(13A); B10.2.2(14); B10.2.2(15); B10.2.2(17); B10.2.2(19); E36.2(3B); E36.2(3C); E36.2(3D); E36.2(4); E36.2(5); E36.2(6); E36.3(1A); E36.3(1B); E36.3(1C); E36.3(1D); E36.3(3); E36.3(4A); E36.3(4B); E36.3(21); E36.3(23); E36.3(24); E36.3(26); E36.3(29); E36.3(30A);	The Site is identified as being subject to flood hazards and Low – High landslide susceptibility. An assessment of landslide risk undertaken by Tonkin and Taylor concludes that due to site modifications and proposed engineering design, there is overall a low (acceptable) landslide hazard risk at the Site. Tonkin and Taylor apply a risk assessment approach, where the risk is defined as the ‘likelihood’ of a particular geotechnical hazard, multiplied by its ‘consequence’. Low likelihood and low consequence risks are more acceptable, and high likelihood or high consequence risks are less acceptable. While not directly in accordance with Appendix 24 of the AUP (introduced by PC120), the Tonkin and Taylor risk assessment is based on similar principles and is considered to be an appropriate equivalent. Although the risk is considered low, a Trigger Action Response Plan (TARP) is proposed which sets out protocols for if ground conditions are discovered that differ from those anticipated and ensure that risk is not exacerbated should conditions change. The Geotechnical Report assesses stability using a groundwater case which accounts for heavy rainfall events, such as the 100 year ARI. Overall, the Geotechnical Report concludes that the proposed quarry development will not impact on people, property, infrastructure or the environment.

Theme	Relevant objectives and policies	Summary comments
	E36.3(30H); E36.3(33B); E36.3(33C); E36.3(33D); E36.3(33E); E36.3(33F); E36.3(33H); E36.3(33J)	As noted in the Geotechnical Report, the mapped landslide hazards are considered to not represent actual ground conditions given the highly modified nature of the site and proposed engineering designs. Accordingly, it is considered that subject to the implementation of the TARP and the ESCP, stormwater discharge via sediment control devices, earthworks and vegetation removal will not exacerbate slope stability and landslide hazard risks. PDP has assessed flooding risks for the realigned tributary channel, Stage 2 culverts and activities within areas subject to flooding. The assessments model a range of flood events (including up to and beyond the 100 year ARI event) in accordance with Auckland Council Infrastructure Code of Practice accounts for 3.8 degrees of climate change. The changes in flood depths as a result of the proposed stream realignment and stage 2 culverts is set out above, as are the proposed mitigation measures. With regards to mineral extraction activities within flood hazard areas, the PDP report notes that the majority of the mapped hazard areas are associated with tributaries or flood prone areas proposed to be extracted / removed and that the mapped flood hazard areas identified within the Symonds Hill Pit do not accurately reflect the existing situation given significant land modification undertaken to date. Although the proposed stream diversion will increase flood depths by up to 100m in the Mangapū Stream, this will be contained within the steep channel banks. Similarly, the eastern stage 2 culvert will increase flood depths at the culvert by up to 0.3m (tapering off downstream) however this will be contained within the steep gully and will not overtop the haul road. Modelling indicates negligible increases in flood depths in rural areas. Any potential adverse effects as a result of changes in flood depths arising from the proposal are mitigated through: - designing the Stage 2 culverts and stream diversion channel to account for 100-year ARI events and 3.8 degree temperature increase due to climate change; - the inclusion of stream design features such as rock placement and waterfalls / cascades to assist in managing flow and velocity through the diversion channel; and - the implementation of the proposed ESCP to manage earthworks (including vegetation removal and works associated with the installation of the temporary bridge and Stage 2 culverts) within flood hazard areas. The PDP assessments finds that any increase in flood depths is localised and can be contained and mitigated in a manner such that there will be no change or increase in flood hazard risk to people and communities, properties, infrastructure or the environment. Overall, mineral extraction is identified as an activity less sensitive to natural hazards and is considered 'acceptable' to occur at the Site subject to the implementation of proposed designs and identified mitigation measures. As such, the Project accords with the intent of the objectives and policies that address natural hazards and flooding in PC120.
Rural Subdivision		
Boundary Adjustment associated with a subsidiary activity on Lot 6 DP 152736 and Lot 2 DP 115598	B9.2.1(2); B9.2.1(4); B9.4.1(2); B9.4.1(3); B9.4.2(1); E39.2(2); E39.2(8); E39.2(11); E39.3(6)	The boundary adjustment will enable the rearrangement of property boundaries between two contiguous sites to assist with mitigating effects on 163 Middleton Road, the boundary adjustment will result in further separation of the mineral extraction activity from the boundaries of this property. The boundary adjustment will also remove an area of 163 Middleton Road that would otherwise be surrounding by quarry activity. This provides greater certainty for the long term needs of the community including the Applicant and the neighbouring property, through a wider separation from the proposed mineral extraction activity. The change in the location of the boundary further avoids the potential for reverse sensitivity effects of the mineral extraction activity increasing the separation of the separation between the rural residential use of 163 Middleton Road and avoid surrounding this part of the site with mineral extraction activity. The boundary adjustment maintains the natural features and landscapes of the area and does not detract from the rural character and amenity, given the retention of vegetated areas protected by conservation covenants. There are no buildings affected by the change and access arrangement over the accessway will be maintained.

B9.6.3 Conclusion on relevant plans and policy direction

828. The Project has been carefully designed to manage adverse effects on the environment, whilst also recognising that some effects unavoidably result from the development of the Hunua Quarry. As such, the Project generally aligns well with the majority of regional and district plan objectives and policies contained in the AUP. However, the Project will modify the environment, including terrestrial and freshwater systems and the values of part of an ONL. As a result, there are several AUP provisions that the Project is less aligned with such as the protection of indigenous biodiversity and Natural Stream Management Areas and the protection/avoidance of effects on the values of ONLs, when read in isolation.
829. Where adverse effects cannot be avoided, then they have been remedied, mitigated, offset or compensated, where feasible and practicable. Specifically, residual adverse effects on freshwater and terrestrial ecology are proposed to be offset and compensated through a comprehensive ecological package designed to achieve no net loss and where possible a net ecological gain.
830. Overall, the Project will provide for the development of an existing regionally important aggregate resource, which will directly support the growth of Auckland. The Project has applied the mitigation hierarchy with avoidance and mitigation being the first priorities, supplemented by an ecological compensation and enhancement package to manage residual effects. As such, when considered in the context of broader mineral extraction directives of the AUP and the recognition of their potential to result in the loss of natural areas, the Project remains broadly consistent with the objectives and policies of the AUP.

B9.7 Planning Document Recognised by a Relevant Iwi Authority

B9.7.1 Ngāti Te Ata 'Tribal Policy Statement 1991

831. The 'Tribal Policy Statement' sets out the following Key outcomes, the Kaitiaki approach to environmental management and Kaitiaki objectives, which are summarised below. The Tribal Policy Statement aim is to: "clearly state the social, cultural, environmental and political aspirations of Ngaati Te Ata.
832. Tribal policy statement section 1.2 Purpose: confirms four main purposes (key outcomes):
1. To lay down the Kaupapa of Ngaati Te Ata
 2. To define procedures for negotiation between Ngaati Te Ata and external agencies.
 3. To articulate Ngaati Te Ata tribal policy for external agencies.
 4. To identify obligations of external agencies to Ngaati Te Ata.
833. The Policy Statement, section 2.2.3 Kaitiaki sets out the kaitiaki approach to environmental management, which provides for the following:
1. Restoration of damaged ecological systems.
 2. Restoration of ecological harmony.
 3. Ensuring that resources and their usefulness increases.
 4. Reducing risk to present and future generations.

5. Providing for the needs of present and future generations.

834. The four Ngaati Te Ata Kaitiaki objectives listed in the Policy Statement are to:

1. Restore mana of the iwi.
2. Plan for long term usage of taonga.
3. Protect sensitive features of the environment.
4. Plan for the provision of kai for future generations.

835. The Project has been developed with an understanding of cultural values identified through engagement with mana whenua including Ngāti Te Ata, through hui, site visits, and technical workshops involving both mana whenua and project specialists. In particular, Ngāti Te Ata participated in workshops on the Mangapū Stream Tributary realignment. During these workshops, they directly contributed to methodologies, and techniques for realigning the tributary along with mitigation and management mechanisms for restoration of the new stream corridor and rehabilitation of the landscape and ecology.

836. Furthermore, the matters raised through these processes, including expectations relating to partnership, kaitiakitanga, protection of whenua and wai, and involvement in management planning, have been taken into account in the development of the Project. These inputs have informed how the Project has been designed and will continue to guide its implementation, including the finalisation of management plans: Mangapū Stream Tributary Realignment Management Plan, Landscape and Ecology Rehabilitation Strategy and Management Plan, Aquatic Fauna Salvage and Relocation Plan, Lizard Management Plan and the Pest Management Plan.

837. Engagement with Ngāti Te Ata will continue in the post lodgement phase through the development and implementation of the Project, building on established relationships and reflecting a shared expectation of ongoing partnership. A Cultural Management Plan will be developed in partnership with Ngāti Te Ata, to set out how cultural values, engagement processes, and ongoing involvement will be provided for over the life of the Project.

838. It is considered that the Project assists in achieving 3 of the objectives set out in the 'Tribal Policy Statement' to restore mana of the iwi, plan for long term usage of taonga and protect sensitive features of the environment. It supports the provision of kai for future generations by managing discharges to water to maintain water quality.

B9.8 Section 104(1) (ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the that will or may result from allowing the activity.

839. Winstone proposes a voluntary condition to address moderate-high (adverse) visual effects on identified private properties within Viewing Groups (S1, S2, W1 and W2). Under this approach, the Applicant will offer to undertake off-site mitigation planting to affected landowners at the time the consent is granted to mitigate the adverse visual effects. Where landowners elect to participate, a suitably qualified NZILA Registered Landscape Architect will work with the landowner to identify appropriate mitigation planting measures within their property. Planting would then be implemented by Winstone and maintained by the landowner. This measure provides a responsive and collaborative

method to reduce residual visual effects on nearby residents that cannot be addressed by planting within the quarry site.

B9.9 Section 104(3)(a)(ii) – Any Effect on a Person who has Given Written Approval to the Application

840. A consent authority must not, when considering an application, have regard to any effect on a person who has given written approval to the application. The persons who have provided their written approval is set out in section B1.6 and **Appendix B12.3c**
841. Consequently, the Panel cannot consider any adverse effects on the persons listed in section B1.6 and **Appendix B12.3c**.

B9.10 Any Relevant Matters s104(1)(c) RMA

842. The following other matters are considered appropriate to consider for this Project:

B9.10.1 Deeds of Settlement

843. Schedule 5, clause 5(1)(i) of the FTAA requires consent applications to include information about any Treaty Settlements that apply in the Project area, including 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.
844. As identified in **Appendix A6.7** Iwi Engagement Report the iwi identified a Treaty Settlement with either a statutory acknowledgement area or an area of interest within the Project area. **Appendix A6.7** notes that none of the redress provided in these settlements affects the natural and physical resources relevant to the Project area. Table 36, summarises the analysis in **Appendix A6.7** section 3.0:

Table 36: Summary of Treaty Settlements and relevant provisions

Treaty Settlement	Settlement Area of Interest	Relevant provisions and redress relating to natural and physical resources in the project area
Ngāti Tamaoho - the Ngāti Tamaoho Claims Settlement Act 2018	The Project area falls within the Ngāti Tamaoho area of interest.	Cultural and commercial redress enduring cultural, spiritual and historical associations with significant sites and natural resources within their rohe. Financial and economic redress mechanisms intended to support and strengthen the ability to exercise mana whenua within their rohe. A statutory acknowledgement area is recorded over the Otūwairoa Stream and its tributaries (OTS-129-122) including over the Otūwairoa Stream and its tributaries under section 31. Schedule 1 list those bodies as Otūwairoa Stream and its tributaries (includes Waipokapū Stream, Mangapū Stream, and Waihoehoe Stream). The Project area is located within and affects these water bodies in the statutory acknowledgement area.

Treaty Settlement	Settlement Area of Interest	Relevant provisions and redress relating to natural and physical resources in the project area
Ngāi Tai ki Tamaki - Ngāi Tai ki Tamaki Claims Settlement Act 2018	The Project area falls within the Ngāi Tai ki Tāmaki area of interest.	Cultural redress includes reserves and reserve management arrangements, access provisions under the Crown Minerals Act 1991. Commercial redress includes strengthening the ability to exercise mana whenua within their rohe. A statutory acknowledgement is recorded over the Wairoa River and its tributaries (OTS-403-127). This statutory acknowledgement extends into catchments within the area covered by the Project area consent application. This includes tributaries potentially affected by the proposed works, noting the zone of influence and the relationship between ground and surface water. Deeds of recognition.
Ngāti Paoa - Ngāti Paoa Claims Settlement Act 2025	The Project area falls within the Ngāti Pāoa area of interest.	Cultural redress recognises longstanding spiritual, historical and traditional associations with significant sites and natural resources, such as access to land under the Crown Minerals Act 1991 within their rohe. Commercial redress mechanisms intended to support long-term cultural and economic development.
Tāmaki Makaurau Collective - Ngā Mana Whenua o Tāmaki Makaurau Collective Redress Act 2014	The Project area falls within the collective area of interest.	Cultural redress restoring ownership of specified maunga and motu, however these do not include any land within the Project area. Commercial redress mechanisms, including rights of first refusal over specified Crown land.
Waikato-Tainui - Waikato Raupatu Claims Settlement Act 1995	The Project area falls within the broader Waikato-Tainui area of interest.	The Crown's formal acknowledgements including the wrongful raupatu of Waikato lands and the severe impacts on Waikato Tainui. Mechanisms including cultural and commercial redress arrangements to support the restoration of Waikato Tainui's economic base and strengthen their ability to exercise mana whenua across their rohe.
Te Ākitai Waiohū - Te Ākitai Waiohū Deed of Settlement 12 November 2021	The Project area falls within the Te Ākitai Waiohū area of interest.	Land and financial redress, rights of first refusal over specified Crown land, leaseback arrangements, statutory acknowledgements, and an agreed historical account. Relationship agreements with government agencies and statements of association / letters of introduction to parties including Auckland Council.
The Marutūāhu Iwi Collective Deed of Settlement initialed on 27 July 2018	The Project area falls within the broader Marutūāhu area of interest.	Commercial redress to strengthen the economic base and support long-term development aspirations. Mechanisms that reinforce the collective identity and mana whenua of the Marutūāhu Iwi across wider Tāmaki

Treaty Settlement	Settlement Area of Interest	Relevant provisions and redress relating to natural and physical resources in the project area
		(and Hauraki) regions, ensuring their cultural interests and relationships with key landscapes and seascapes are appropriately recognised.
Ngaati Whanaunga - Ngaati Whanaunga Deed of Settlement 25 August 2017	The Ngaati Whanaunga settlement area of interest includes the proposed Project site.	Financial and commercial redress intended to support the iwi long term economic development. Mechanisms that strengthen Ngaati Whanaunga to exercise mana whenua, including statutory acknowledgements and other arrangements that ensure their interests are appropriately considered in environmental and resource management processes.
Ngāti Tamaterā - Ngāti Tamaterā Deed of Settlement 20 September 2017	The Ngāti Tamaterā area of interest includes the proposed Project site.	Cultural redress, financial redress, and commercial mechanisms designed to support Ngāti Tamaterā long-term cultural and economic development. Arrangements that strengthen Ngāti Tamaterā to exercise mana whenua and maintain their cultural identity within their rohe, and contributing to the rebuilding of an economic base.
Ngāti Te Ata - Ngāti Te Ata Terms of Negotiation 29 Jun 2011	The scope of negotiations and recognise Ngāti Te Ata interests across Tāmaki Makaurau, which include the proposed Project site.	A framework for identifying the cultural, commercial, and financial redress that will form part of Ngāti Te Ata's eventual settlement package. Developing relationship agreements with government agencies and other entities, to ensuring that the final settlement reflects Ngāti Te Ata mana whenua, cultural identity, and enduring relationships with significant sites, landscapes, and natural resources within their rohe.
Ngāti Maru (Hauraki) - Ngāti Maru (Hauraki) Deed of Settlement 8 September 2017.	The Ngāti Maru area of interest, includes the project area and extends across parts of the Hauraki region including the Coromandel Peninsula and associated offshore islands within that area.	A cultural redress package recognising cultural and historical connections to the rohe of Ngāti Maru. Measures that establish and promote enduring relationships between Ngāti Maru and key government agencies. Other collective redress mechanisms.

B9.10.2 The Auckland Plan

845. The Auckland Plan is a spatial plan that sets the direction for how Auckland will grow and develop over the next 30 years. The wider Auckland Plan was last updated in 2018, with the Future Development Strategy that is contained within it revised in 2023. The Future Development Strategy was updated to recognise the requirements of the National Policy Statement on Urban Development 2020 and environmental and climate legislation.

846. The Auckland Plan including the Future Development Strategy identifies a number of outcomes to be pursued and within these outcomes are directions and focus areas. While there are no directly relevant outcomes for quarrying, there are several focus areas, including directions which support development of homes and places, opportunities and prosperity for Auckland's residents, and ensuring Auckland's infrastructure is future proofed. The provision through the Project of high-quality aggregate resource for the region is, accordingly, an important component in achieving the outcomes sought by the Auckland Plan.

B9.11 Part 2 RMA s 5, 6 and 7

847. The following sections provide an assessment against the relevant Part 2 matters, as required by sch 5, cl 5(1)(g) of the FTAA. Part 2 of the RMA sets out the purpose and principles of the Act. The purpose of the RMA is to promote the sustainable management of natural and physical resources.

B9.11.1 Section 5 – Purpose

848. Section 5(1) states that the purpose of the RMA is to promote the sustainable management of natural and physical resources, with sustainable management defined in Section 5(2).
849. The Project is consistent with the overall purpose of the Act because:
- It is required to continue to enable the benefits of essential infrastructure activities such as housing, roads, hospitals, wastewater treatment plants and flood protection that provide for communities social, economic and cultural wellbeing and for their continued health and safety. The aggregate produced at Hunua Quarry is vital to meeting local demand, which already outstrips supply, in a cost-effective manner. As detailed in the Economics Assessment, it is vitally important that quarries locate in proximity to markets/demand, to minimise the length of vehicle trips, given that aggregate is a bulky product and expensive to transport.
 - The development and operation of the Symonds Hill Pit will be subject to best practice and robust environmental management measures to protect the life supporting capacities of air, water, soil and ecosystems.
 - Effects such as those on ecological values that cannot be avoided, remedied or mitigated will be subject to an extensive offset and compensation package.

B9.11.2 Section 6 – Matters of National Importance

850. Matters of national importance, which are to be recognised and provided for, are set out in Section 6 of the RMA. The following matters have particular relevance to the Project:
- (a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:
 - (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:
 - (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:
 - (d) ...

- (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga;
- (f) ...
- (g) ...
- (h) the management of significant risks from natural hazards.

851. Natural character (s 6(a)): The Project will result in the loss of 1200 metres of stream length, but this will be 'replaced' with a new section of stream with a similar substrate, meanders and riparian planting, such that over time the values in the realigned stream section will increase. Culverts are also proposed within two other tributaries to Mangapū Stream that will result in the loss of fish passage. This loss will also be offset by extensive riparian planting and works to be undertaken along waterways on Auckland Parks land and at Meremere Quarry, where improvements will enhance their natural character as well as their ecological values. Accordingly, natural character including wetlands, lakes and rivers are preserved and protected from inappropriate development.
852. Landscapes (s 6(b)): Likewise, the Project will result in the loss of 6ha of the total 394ha or 1.5% of the Ponga Road ONL. The Landscape Assessment has determined that localised effects on the ONL are moderate (adverse) during operation before mitigation, reducing to low-moderate (adverse) at completion after mitigation. At the broader ONL level, the effects are low-moderate (adverse) during operation, reducing to low (adverse) at completion after mitigation. Mitigation relates to significant planting of indigenous vegetation and the works related to enhancing the natural character of the realigned Mangapū Tributary. Accordingly, the development that affects the ONL is not inappropriate.
853. Indigenous vegetation and fauna (s 6(c)): Whilst areas of significant indigenous vegetation and significant habitats of indigenous fauna will be lost within the Site, this loss will be offset through a comprehensive offset and compensation package as discussed in several sections of this application and the Ecological Assessment. As such, overall, there will be no net loss of ecological values, and areas of significant indigenous vegetation and significant habitats of indigenous fauna are protected.
854. Māori culture and traditions (s 6(e)): On the basis of the assessments and outcomes from engagement during the pre-lodgement phase the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga has been taken into account and the Project seeks to recognise and provide for these relationships. Further consultation and engagement is underway and conditions provide for further involvement in the finalisation of management plans, and the preparation of a Cultural Management Plan that seeks to maintain the established partnership relationships with mana whenua to continue for the life of the Project.
855. Natural hazards (s 6(h)): The Flood Assessment Memo and the Geotechnical Assessment have both determined that there will be no significant risks from natural hazards. There are low to moderate risks but these can be managed through conditions of consent and a TARP that will manage site stability.

B9.11.3 Section 7 – Other Matters

856. Section 7 of the RMA sets out other matters to which particular regard must be had when exercising functions and powers under the RMA. Of particular relevance to this proposal are:
- (a) kaitiakitanga;
 - (b) The efficient use and development of natural and physical resources;
 - (c) The maintenance and enhancement of amenity values;

- (d) Intrinsic values of ecosystems;
- (e) Maintenance and enhancement of the quality of the environment; and
- (f) Any finite characteristics of natural and physical resources.

857. Having particular regard to these matters, the following points are noted:

- Kaitiakitanga is a Māori concept denoting guardianship, stewardship, and protection of the environment, stemming from a deep kinship between humans and nature. It can only be understood through meaningful engagement with Mana Whenua. Therefore, the Project has been developed with an understanding of cultural values identified through hui, site visits, and technical workshops involving both mana whenua and project specialists. This engagement has been supported by formal inputs, including cultural values assessments and cultural memoranda.
- The Project will provide access to a vital resource required in proximity to Auckland, given it is expensive to transport.
- The Site is already developed and operating, and the expansion area will be able to efficiently utilise existing processing plant.
- New available sites for mineral extraction are not easily found this close to Auckland and establishing a new quarry would introduce a range of effects into a new environment and into a new community, rather than containing them in an established location. Continuing to quarry at the established location is an efficient use of a finite natural resource (aggregate)
- Effects on amenity values and the quality of the environment will be effectively managed through conditions and management plans and a range of mitigations including on-site planting, the protection of established vegetation, and compliance with dust and noise limits.
- Where effects on ecological values cannot be avoided, it is proposed to implement a comprehensive offset and compensation package.
- Furthermore, the realignment of the Mangapū Tributary will be undertaken to ensure that the character of, and the values in, the current tributary are replicated over time in the realigned channel and riparian margins.

858. In summary, it is considered that the Project has had particular regard to the provisions of section 7 of the Act.

B9.12 Section 105 and 107 RMA Discharges to Water

859. Sections 105 and 107 of the RMA are relevant to applications for discharges under section 15 of the Act.

860. Section 105 sets out additional matters which must be considered by a consent authority when considering an application for a discharge permit. Section 105(1) states:

- (a) If an application is for a discharge permit or coastal permit to do something that would contravene section 15 or section 15B, the consent authority must, in addition to the matters in section 104(1), have regard to—
 - (i) *the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*

- (i) *the applicant's reasons for the proposed choice; and*
- (ii) *any possible alternative methods of discharge, including discharge into any other receiving environment.*

B9.12.1 Types of Discharges

861. Discharge permits are being sought for the diversion and discharge of groundwater, diversion and discharge of stormwater and discharges to air. Detailed consideration has been given to methods for addressing any potential adverse effects of these discharges, and appropriate methods have been adopted (including through design and construction methods in accordance with best practice) to ensure effects are appropriately managed. Further details are provided in the relevant technical reports including the:

- Air Quality Assessment in **Appendix B12.4.1**
- Erosion and Sediment Control Assessment Report in **Appendix B12.4.7**.
- Groundwater Effects Assessment in **Appendix B12.4.9**.

B9.12.2 Groundwater Discharges

862. It is proposed to discharge groundwater pumped from the Symonds Hill Pit to the Mangapū Stream after being treated in settling ponds. It is understood that to date, discharges from the Quarry to the Stream have not resulted in any adverse impacts on water quality (refer to section B7.7 and the Groundwater Assessment in **Appendix B12.4.9**). The Stream is therefore not considered to be overly sensitive to the discharge of groundwater, provided that it is not sediment laden.
863. There are no realistic alternatives to this discharge as storing it on site is impractical given the volumes and it is also required to augment stream flows, affected by pit pumping. In the absence of plausible alternatives, not allowing this discharge will curtail quarrying activity on the Site.

B9.12.3 Stormwater discharges

864. As for groundwater, stormwater diverted from disturbed areas will be treated in sediment ponds (potentially also treating with chemical flocculation) before being discharged to Mangapū Stream. As described It is understood that to date, discharges from the Quarry to the Stream have not resulted in any adverse impacts on water quality (refer to section B7.7 and the Groundwater Assessment in **Appendix B12.4.9**). The Stream is therefore not considered to be overly sensitive to the discharge of groundwater, provided that it is not sediment laden.
865. The discharge of treated water to the Stream was chosen because it returns water that has been essentially diverted from the tributaries that feed the Mangapū Stream. It is possible to allow the treated water to drain to land but, this would require a lot more ponds within proximity to the pit, where flat land is in limited supply. It would also mean additional water is needed to augment stream flows, which can be easily addressed by returning treated stormwater to the Mangapū Stream.

B9.12.4 Erosion and Sediment Control

866. Earthworks, the removal of overburden and the stream alignment works will be undertaken in accordance with stringent erosion and sediment controls that have been developed according to the principles of the Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region (GD05) and best practice sediment control measures. Furthermore, ESC plans will be provided to AC every year enabling an adaptive management approach as ESC methods can be updated. To implement any other measures or controls would mean applying a lower standard of erosion and sediment controls.

B9.12.5 Discharges to Air

867. The SPQZ is characterised as a low air quality environment under the AUP, and the rural zones are a medium air quality environment. Effects on air quality in the surrounding rural environment have been minimal due to the effective dust management measures in place at the Site. While the Project will expand into the Rural Mixed Use Zone, the Air Quality Assessment has determined that if the existing mitigation measures along with stringent dust monitoring are implemented, then existing air quality, as anticipated in a rural zone, will be maintained.
868. As such, the Applicant proposes to implement best practice management of discharges to air, including meeting the requirements of the NES-AQ. The NES-AQ includes an assessment criterion for PM10.
869. The nature of the activity and the established nature of the processing facility means that there are no options or alternative methods of discharge to air.

Section 107 of the RMA

870. Section 107(1) restricts the granting of discharge permits in certain circumstances, namely if, after reasonable mixing the contaminant or water discharged (either by itself or in combination with other contaminants or water) is likely to give rise to any of the following effects in the receiving waters:
- (a) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials;
 - (b) Any conspicuous change in the colour or visual clarity;
 - (c) Any emission of objectionable odour;
 - (d) The rendering of fresh water unsuitable for consumption by farm animals; and
 - (e) Any significant adverse effects on aquatic life.
871. The Project has been designed to ensure that, as far as practicable, activities within the Site will not result on the effects listed above. This is achieved through the use of best practice measures and an adaptive management approach, using management plans that can be updated to reflect improved methods and technologies. Accordingly, no restriction under s 107 applies.
872. As described in this section, there are limited alternative methods and locations for discharges of groundwater, stormwater and air discharges (largely due to the existing consented quarry operations) but these have been considered prior to arriving at the Project as it is described in this application.

B9.13 Conclusion on Statutory Assessment under the RMA.

873. Overall, the Project is considered to be generally consistent with the purpose and relevant principles of the RMA and planning documents prepared under the RMA.

B10. The Fast Track Approvals Act 2024 Decision-Making Framework

874. In considering whether to grant the resource consents sought in this application, the Panel must meet the requirements of s 81 of the FTAA, which includes applying the specific decision-making clauses in Schedule 5.

B10.1 Approvals Relating to Resource Consents are Ordinarily Sought under the RMA

875. Clause 17 of Schedule 5 FTAA outlines what, when considering an application for resource consent and setting conditions, the Panel must take into account the following:
- (a) the purpose of the FTAA;
 - (b) the provisions of Parts 2, 3, 6, 8 and 10 of the RMA that direct decision-making on an application for resource consent (but excluding s 104D); and
 - (c) the relevant provisions of any other legislation that directs decision-making under the RMA.
876. The Panel must give the greatest weight to the purpose of the FTAA.
877. The reference to Part 2 of the RMA excludes section 8 of the RMA (sch 5, cl 17(2)(a)), and the reference to Part 6 of the RMA excludes s 104D. Any provision of the Resource Management Act 1991 that would require a decision-maker to decline an application for resource consent (such as 87A(6)) must be taken into account but cannot be treated as requiring the decision-maker to decline the application on that basis.
878. Consideration of s 104(1)(c) of the RMA, as identified above, 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 that section.
879. Clause 18 of Schedule 5 outlines that Parts 6, 9 and 10 of the RMA (as relevant to setting conditions on a resource consent) apply to the Panel.
880. In addition to the matters in s 81(3)(a) – (c) of the FTAA (as relevant to applications for resource consent), the Panel must also consider the matters in s 81(2), including the extent of the project's regional or national benefits.
881. Finally, and to avoid doubt, nothing in ss 81, 82 or 85 FTAA limits section 7 of the FTAA, as it relates to Treaty settlement obligations and recognised customary rights.

B10.2 Criteria for assessment of application for a change or cancellation of consent conditions

882. Clause 23 of schedule 5 outlines that, for the purposes of section 81, when considering an application for change or cancellation of a condition
883. The Panel must apply section 127(1) and (3) of the Resource Management Act 1991 as if-
- (a) In section 127(3) of the RMA, the reference to section 88 to 121 of that Act were to the provisions of Part 6 of that Act that relate to decision making on a resource consent; and
 - (b) The provisions of Part 6 of that Act were read with all necessary modifications, including a reference to a consent authority must be read as a reference to a panel; and
 - (c) The Panel must consider any Mana Whakahono ā Rohe or joint management agreement that is relevant to the approval; and
 - (d) To avoid doubt the section 127(4) of the RMA does not apply. (there is no need to consider parties who originally made a submission on the original application or may be affected by the change of consent condition).

B10.3 Section 85 FTAA

884. Section 85 of the FTAA provides a list of circumstances where a Panel either must (pursuant to subclauses (1) and (2)) or may (pursuant to subclause (3)) decline approval.
885. These tests are an addition to the usual decision-making framework for resource consents under the RMA set out above. Pursuant to s 81(2)(f) of the FTAA, the Panel may decline an approval only in accordance with s 85 of the FTAA.

B10.4 Mandatory Criteria

886. As relevant to the application for resource consent, s 85 requires that an application must be declined if:
- (a) It is for an ineligible activity.
 - (b) The Panel considers that granting the approval would breach obligations relating to Treaty settlements and recognised customary rights.
 - (c) It is in an area covered by cl 17(5) of Schedule 5.
887. None of the mandatory criteria for declining an application for resource consent under s 85 are met:
- (a) The application is not for an ineligible activity, as demonstrated by Section A2.4 to the Substantive Application Overview.
 - (b) Granting the approval would not breach obligations relating to Treaty settlements and recognised customary rights. Those obligations are addressed in detail in the Iwi Consultation Report attached to the Substantive Application Overview, as well as in **Appendix A6.7**. None of those obligations would be breached by granting the approvals.
 - (c) The application is not in an area covered by cl 17(5) of Schedule 5.

B10.5 Discretionary Criteria

888. A Panel may also decline an approval if it forms the view that:
- (a) The activity or activities for which the approval is sought would have one or more adverse impacts; and
 - (b) 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.
889. In subsections (3) and (4), adverse impact means any matter considered by the Panel under section 81(2) that weighs against granting the approval. The adverse impacts of the project have been appropriately managed to acceptable levels. They are not disproportionate to the Project's significant regional and national benefits.
890. No aspect of the Project is inconsistent with or contrary to a provision of a specified Act or any other document that the Panel must take into account in section 81(2).
891. There are no circumstances which would warrant the Panel exercising its discretion to decline an approval in this case.

B11. Assessment of Proposal against the Fast- Track Act's decision-making Framework

B11.1.1 Purpose of FTAA

892. The purpose of the FTAA is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.
893. The Project is consistent with the purpose of the FTAA as it will secure a significant volume of high-quality aggregate in the Auckland Region, a fundamental resource required to facilitate the delivery of infrastructure and development projects that provide significant regional and national benefits. In addition, the Project is itself a development project that will provide significant regional and national benefits in its own right.
894. The panel must give the greatest weight to this factor in considering the resource consent application.

B11.1.2 Parts 2,3,6,8 to 10 of the RMA (as relevant) and any other legislation which directs the decision-making under the RMA

B11.1.2.1 Parts 2 and 6 of the RMA

895. A comprehensive assessment of the proposal against the relevant provisions of Part 2 of the RMA has been provided in Section B9.11 above. The assessment has also considered all relevant provisions in Part 6 (resource consents) of the RMA, including the decision making tests and restrictions on

resource consents in ss 104, 104B, 107 of the RMA. The assessment against Parts 2 and 6 of the RMA has concluded that the Project is consistent with those provisions because adverse effects have been appropriately managed and the Project is consistent with the objectives and policies in relevant planning instruments. This assessment therefore points in favour of granting the resource consents.

896. An assessment of the proposed mitigation measures, and the conditions proposed to secure those (pursuant to s 108 of the RMA) is provided in Section B8 above.

B11.1.3 Part 3 of the RMA

897. Insofar as the proposal relates to Part 3 of the RMA:

- (a) All activities comprising the Project are either permitted pursuant to ss 9, 13, 14, 15 or 16, or are the subject of applications for resource consent.
- (b) There is nothing in the Part 3 provisions that points against the granting of resource consent approvals. The Project is consistent with the scheme of Part 3.

B11.1.4 Parts 8 to 10 of the RMA

898. Parts 8 to 10 (designations, heritage orders, water conservation orders, subdivision and reclamations) of the RMA are not relevant to the proposal.

B11.1.5 Other Relevant Legislation

899. There are no relevant provisions of any other legislation which direct decision-making under the RMA.

B11.1.6 Changes in consent conditions

900. The proposed changes in consent conditions are appropriate, applying the provisions of Part 6 of the RMA that relate to decision making on resource consents (sch 5, cl 23).

B11.1.7 Conclusion

901. Based on the analysis above, it is considered that the application is consistent with the parts of the RMA relevant to decision-making under the FTAA, and the documents to which they refer.
902. The Project is supported by a compelling economic case and will deliver significant and sustained benefits predominantly for the Auckland region across multiple dimensions. Assessed conservatively, the avoided cost analysis estimates regional economic benefits in excess of \$693M, alongside the significant value added and employment impacts with the spend level required by the Project.
903. The Project will result in considerable positive effects providing for the foundational materials for buildings, development and maintenance of road and infrastructure. Aggregate given its foundational nature has a significant role in support development and renewal and contribute to the competitiveness of the regional economy as a whole. The Project is aligned with delivering on priorities for both regional and central government scale projects. Assessed conservatively estimates of the regional economic benefits of the Project over its life has in excess of \$693m of savings, alongside the significant value added and employment impacts with the spend level required by the Project

904. The Project has been designed to carefully manage adverse effects on the environment, whilst also recognising that some effects unavoidably result from the development of the Hunua Quarry. As such, the Project generally aligns well with the majority of regional and district plan objectives and policies contained in the AUP. However, the Project will modify the environment, including terrestrial and freshwater systems and within an ONL. As a result, there are several AUP provisions that the Project is less aligned with such as indigenous biodiversity and freshwater systems and the protection/avoidance of effects on the values of ONLs, when read in isolation.
905. Where adverse effects cannot be avoided, then they have been remedied, mitigated, offset or compensated, where feasible and practicable. Specifically, residual adverse effects on freshwater and terrestrial ecology are proposed to be offset and compensated through a comprehensive ecological package designed to achieve no net loss, and where possible to achieve a net ecological gain.
906. This Project is integral to the Auckland region meeting its ongoing demand for construction materials, as the Auckland region continues to grow and replace/revitalise its infrastructure. Overall, the Project fulfils the intent and purpose of the FTAA and Parts 2, 3 and 6 of the Resource Management Act 1991 (RMA) in that it will allow for the further development and operation of a strategically important and environmentally sustainable quarry, securing a future supply of high-quality aggregate to the region, while also realising significant economic and community benefits.

B11.2 Conditions

907. This section of the application is provided in accordance with clauses 5(1)(k) and 18 of Schedule 5 of the FTAA. These clauses require that an application proposes conditions for the resource consent. The proposed conditions of consent which seek to implement the mitigation, offsetting and/or compensation measures and monitoring that have been identified in the technical assessments as being necessary are appended to this assessment as **Appendix B12.7**.
908. In recommending the proposed conditions of consent for this application in accordance with clause 5(1)(k) of Schedule 5 to the FTAA, the conditions are proposed to:
- (a) Appropriately manage adverse effects, including providing mitigation to prevent or reduce adverse effects during and after construction in accordance with cl 6(1)(d) of Schedule 5 to the FTAA;
 - (b) Provide for monitoring as required by clause 6(1)(g) of Schedule 5; and
 - (c) Give effect to those matters that the Panel must consider under s 81(2)(a) of the FTAA.
909. The conditions sought to be imposed are no more onerous than necessary pursuant to s 83 of the FTAA. It is considered that they meet the requirements of the FTAA, and that the Panel may grant resource consent subject to the conditions in accordance with s 81(1)(a) of the FTAA.
910. No conditions are proposed to ensure the adequacy of infrastructure to support the project pursuant to s 84A.

Appendix B12.1: Authors Curriculum Vitae

Appendix B12.2a: Location Plan – Survey Plans

Appendix B13.2b: Location Plan – Boffa Miskell Plans

Appendix B12.3a: Plans of the Proposal

Appendix B12.3b: Proposed Boundary Adjustment Subdivision Plan

Appendix B12.3c: Written Approvals

Appendix B12.4: Technical Reports

Appendix B12.4.1: Air Quality Assessment

Appendix B12.4.2: Archaeological Assessment

Appendix B12.4.3: Contaminated Site Investigation

Appendix B12.4.4: Economic Assessment

Appendix B12.4.5: Ecological Assessment

Appendix B12.4.6: Mangapū Tributary Realignment - Preliminary Design and Effects Technical Report

Appendix B12.4.7: Erosion and Sediment Control Assessment Report

Appendix B12.4.8: Geotechnical Assessment Report

Appendix B12.4.9: Groundwater Effects Assessment

Appendix B12.4.10: Landscape Effects Assessment

Appendix B12.4.11: Acoustics and Vibration Assessment

Appendix B12.4.12: Hunua Quarry Expansion Resource Report

Appendix B12.4.13: Stream Crossing Report

Appendix B12.4.14: Transportation Assessment

Appendix B12.4.15: West Haul Road Culvert Design and Flood Risk Assessment

Appendix B12.5: Resource Consent Decisions of Relevance

Appendix B12.6: Full Names and Address of Owners and Occupiers Adjacent to the Site

Appendix B12.7: Draft Conditions

Appendix B12.8: Management Plans

Appendix B12.8.1: Air Quality Management Plan

Appendix B12.8.2: Archaeological Management Plan

Appendix B12.8.3: Aquatic Fauna Salvage and Relocation Plan

Appendix B12.8.4: Lizard Management Plan

Appendix B12.8.5: Pest Management Plan

Appendix B12.8.6: Operational Noise Management Plan

Appendix B12.8.7: Stream Realignment Management Plan

Appendix B12.8.8: Quarry Management Plan

Appendix B12.8.9: Landscape Rehabilitation Plan

Appendix B12.8.10: Ecological Management Plan

Appendix B12.8.11: Chemical Treatment Management Plan

Appendix B12.8.12: Groundwater Monitoring Contingency Plan

Appendix B12.9: Relevant Objectives, Policies and Statutory Assessment

Appendix B12.10: Compliance Table for the Relevant Plans and Planning Instruments

Appendix B12.11: Written Acknowledgement for
the use of Hunua Regional Park for Offset
Planting

Appendix B12.12: S176(1)(b) Ardmore Airport
Written Consent

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