

Technical Specialist Memo – Contaminated land

To:	Emma Chandler – Lead Planner & Warwick Pascoe - PPL
From:	Marie Meredith, Environmental Specialist - Contamination, Air & Noise Team
Qualifications & Relevant Experience:	I hold the qualification(s) of: Bachelor of Environmental Science, Master of Science, and have ten years' experience working in environmental science including four in contaminated land and air quality. I am a full member of the Australasian Land and Groundwater Association. I have prepared technical assessments for resource consent applications, notices of requirement for designation and fast-track applications.
Preparation in Accordance with the Code of Conduct:	I confirm that I have read the Environment Court Practice Note 2023 – Code of Conduct for Expert Witnesses (Code), and have complied with it in the preparation of this memorandum. I also agree to follow the Code when participating in any subsequent processes, such as expert conferencing, directed by the Panel. I confirm that the opinions I have expressed are within my area of expertise and are my own, except where I have stated that I am relying on the work or evidence of others, which I have specified.
Date:	8 May 2026 , revised 30 July 2026

1.0 APPLICATION DESCRIPTION

Application and property details

Fast-Track project name:	Hunua Quarry
Fast-Track application number:	FTAA-2603-1185 (Council Reference BUN60464053)
Site address:	489 Hunua Road, Hunua

2.0 Executive Summary / Principal Issues

This memo provides a review of contaminated land matters associated with the proposed expansion of the Hunua Quarry pit and concludes that, overall, the site presents a low risk to human health and the environment; and is suitable for the proposed commercial/industrial use.

The following provides a summary of the areas of potential contamination, intrusive investigation findings, soil management requirements; and overall conclusions and recommendations with respect to the NES:CS and Chapter E30 of the AUP(OP). A recommendation is made regarding works completion reporting.

3.0 Documents Reviewed

- *Assessment of Environmental Effects and Application for Resource Consent – Hunua Quarry Development (AEE)* prepared by Boffa Miskell, dated 30 March 2026
- Appendix B12.4.3: *Hunua Quarry Pit Development – Combined Preliminary & Detailed Site Investigation (PSI & DSI)* prepared by PDP Ltd, dated March 2026
- Appendix B12.8.8: *Quarry Management Plan (QMP)* prepared by Winstone Aggregates, dated March 2026
- Appendix B12.7: *Draft Conditions*
- Appendix B12.8.11: *Chemical Treatment Management Plan (CTMP)* prepared by Winstone Aggregates, dated March 2026

4.0 Additional Reasons for Consent Not included in AEE

There are no additional reasons for consent for contaminated land not included in the AEE

5.0 Specialist Assessment

Proposed works

The AEE has detailed that the Fast-track resource consent application for the expansion of the Hunua Quarry Symonds Hill pit is to involve the expansion of the pit by approximately 50 hectares to a full pit extent of 100 hectares, to be progressed in eight indicative stages over 50–80 years.

Summary of Preliminary and Detailed Site Investigation and Soil Management Recommendations

A PSI & DSI is submitted as part of this application to assess the soil contamination profile of the site. This PSI & DSI was prepared by Pattle Delamore Partners Ltd in March 2026. It is stated to have been prepared by a Suitably Qualified and Experienced Practitioner (SQEP) in general accordance with the requirements of the *Contaminated Land Management Guidelines Nos. 1 and 5* (MfE, revised 2021).

Areas of Potential Contamination (AOPC)

The PSI & DSI identifies areas of potential contamination limited to the northern section of the pit development area, where quarrying is proposed in Stages 7 and 8 (approximately 35 – 50 years in the future). These areas include:

- C + R Rack (fuel storage, maintenance area)
- Graveyard and extension of graveyard (machinery storage and maintenance)
- Hay Paddock overburden disposal area
- Residential property at 193 Middleton Road

The following HAIL activities were considered to apply to the above AOPC:

- HAIL Item A17 – storage tanks or drums for fuel, chemicals or liquid waste. A site walkover noted the storage of fuel (diesel in bunded ASTs), oil (various drums/jerry cans) and waste oil (in a bunded IBC) at the C+R Rack area.
- HAIL Item F4 – motor vehicle workshops. Evidence of the maintenance of heavy machinery was noted at the C+R Rack, Graveyard and extension of Graveyard areas during the site walkover.
- Potential HAIL Item I – land that has been subject to intentional release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment. Council's Site Contamination Enquiry response and historical aerial photographs identified earthworks in the northeastern corner of the investigation area (i.e. the Hay Paddock OBDA) that appear to be from the disposal of overburden.

The remainder of the proposed pit area (Stages 1-6) does not contain identified HAIL land uses. The contaminated land provisions of the NES:CS and Chapter E30 of the AUP(OP) therefore are not considered to apply to this area.

Intrusive Investigation Findings

Targeted soil sampling was undertaken to investigate the potential for the HAIL activities to have caused soil contamination. As detailed in section 10 of the DSI, samples were taken from 16 locations (associated with the storage of fuel, oil and waste oil, maintenance of heavy machinery and disposal of possible uncertified fill material) at maximum depth of 0.3 m below ground level (bgl). The samples were sent to an accredited laboratory and analysed for the following:

- Samples were analysed for heavy metals and polycyclic aromatic hydrocarbons (PAHs).
- The nine surface soils where hydrocarbon staining was observed and the subsurface soil samples from four of these locations were tested for total petroleum hydrocarbons (TPHs).

All but one of the surface and subsurface soil samples analysed comply with the relevant NES:CS Soil Contaminant Standards (SCS) and Soil Guideline Values for commercial/industrial land use. The exceedance was in surface soil sample PMS08 (0-0.1 m) from the extension of the Graveyard area, where TPH C10-C14 (1,840 mg/kg) exceeded the Tier 1 guideline value for surface sand (1,500 mg/kg).

This exceedance is attributed to diesel contamination. PAH concentrations at PMS08 were low and well below applicable guideline values, indicating a low human health risk. A corresponding subsurface

sample (PMS18 at 0.3 m depth) showed a reduced TPH concentration (840 mg/kg), demonstrating decreasing concentrations with depth.

PAH and/or TPH compounds were detected at above laboratory detection limits in soils from the C+R Rack, Graveyard, and Graveyard extension areas.

Two surface samples from the C+R Rack area marginally exceeded typical background levels for zinc.

Aside from the shallow soils near PMS08, soil disturbance associated with the proposed pit development is unlikely to pose an unacceptable risk to human health for commercial/industrial users.

All soil samples reported concentrations of heavy metals and PAHs below the Permitted Activity (PA) soil acceptance criteria detailed in Table E30.6.1.4.1 of the AUP(OP). The disturbance of shallow soil (0 – 0.3 m bgl) in the vicinity of PMS08 (with elevated TPH C10-C14) was considered to pose a low risk to the environment given its isolated location and distance from surface waterbodies.

Soil Management

Any future handling or disturbance of shallow hydrocarbon-impacted soils should follow petroleum industry management protocols. The PSI & DSI recommends that these protocols are detailed in a Site Management Plan (SMP) that is to be included as a condition of consent.

The shallow impacted soils at location PMS08 (0-0.3 m bgl) are to be excavated and disposed of off-site (prior to undertaking bulk earthworks within the graveyard extension area) at an appropriately licensed facility to avoid the need for a long-term discharge consent under the AUP(OP). Subject to management controls, soils within the stockyard areas may be reused on-site however, excess material from these areas is not considered clean fill. Soils outside of the stockyard areas are considered to meet clean fill criteria.

PSI & DSI Conclusions and Recommendations

The PSI & DSI concludes that the NES:CS and Chapter E30 of the AUP(OP) do not apply to soil disturbance across the pit development areas of Stages 1-6. Due to the exceedances of background concentrations, soil disturbance in the areas of Stages 7 and 8 are proposed to be a Controlled Activity (CA) under Regulation 9 of the NES:CS. A Site Management Plan (SMP) will be required prior to soil disturbance in these areas (Stages 7 and 8).

Section 16 of the PSI & DSI proposes conditions related to the undertaking of detailed site investigations (DSIs) for Stages 7 and 8 prior to the start of quarrying activities in these areas.

Review Comments and Assessment

I consider that the PSI & DSI has been prepared by a SQEP in general accordance with the *Contaminated Land Management Guidelines Nos. 1 and 5* (MfE, revised 2021) and adequately details the likely soil contamination profile of the site.

Since quarrying of the northern portion of the pit development area is planned for Stages 7 and 8 approximately 35-50 years after the start of the proposed pit development, I agree with the PSI & DSI

that further DSIs should be undertaken on the stockyard and any other identified HAIL areas that may develop in the next 35 years, prior to any soil disturbance in these areas (and if necessary, further consent be obtained to the extent not already provided for by the works deemed to already require a CA consent in this application).

I consider the proposed conditions in Section 16 of the PSI & DSI to be relevant. They require further investigation in the areas of Stages 7 and 8 prior to works starting in these areas, to determine the need for a Remediation Action Plan (RAP). If remediation is required, a Site Validation Report (SVR) is to be submitted to council after remediation works.

I consider that this soil contamination profile is suitable for the proposed commercial/industrial land use. Further, I consider that there is a low risk to the human health of site workers and neighbours as a result of disturbing soils which may contain contamination at levels greater than typical background concentrations, if the management processes outlined by a certified SMP are employed and draft conditions are adhered to.

With respect to Chapter E30 of the AUP(OP):

In agreement with the PSI & DSI, I consider that the proposal does not require consent under the AUP(OP) Chapter E30 contaminant provisions. The DSI & PSI adequately demonstrates that contaminant concentrations do not exceed the PA soil acceptance criteria in AUP(OP) Table E30.6.1.4.1 and therefore, the soils do not contain ‘elevated levels of contaminants.’ Accordingly, no Contaminant Discharge Consent is required under the AUP(OP) for the proposal at this stage.

With respect to the NES:CS:

The proposed soil disturbance activity is a CA under Regulation 9(1) of the NES:CS as:

- The PSI & DSI identified soil contaminants at levels exceeding background but less than relevant SCS for the protection of human health;
- The volume of soil disturbance to be undertaken will likely exceed the PA threshold of Regulation 8(3) of the NES:CS for the piece of land where the HAIL activity occurred.
- The CA standards of Regulation 9(1) are met as an adequate DSI has been submitted.

Implementation of the recommended consent conditions provided below and adherence to a certified SMP will suitably assist in mitigating potential adverse effects on human health during the proposed works. The recommended conditions of consent are within the matters of control detailed within Regulations 9(2) of the NES:CS.

6.0 Section 67 Information Gap

I have identified that there are no section 67 information gaps.

7.0 Recommendation

I recommend that the applicant produces a Works Completion Report following works in relevant AOPC, in accordance with Regulation 9(2) of the NES-CS. This is to ensure risk to the environment and human health from disturbing soil with elevated levels of contaminants greater than typical background concentrations are adequately mitigated.

Given the CA status of the proposal, a SMP is required to comply with Regulation 9(2) of the NES-CS. I agree with the recommendations of the PSI & DSI in that an intrusive investigation be undertaken in Stages 7 and 8 prior to the start of quarrying activities in these areas, to determine the need for future consents if future works (relating to contamination) are not already provided for by the CA consent. I consider that the applicant's proposed conditions are generally similar to those issued for other consents of a similar nature.

Overall, I consider that there is a low risk to the human health of site workers and neighbours as a result of disturbing soils which may contain contamination at levels greater than typical background concentrations, if the management processes outlined by a certified SMP are employed and draft conditions are adhered to.

8.0 Proposed Conditions

I have reviewed the proposed conditions provided by the applicant and recommend the following:

Land-use Condition		Review comments/recommendations
38	The objective of the Contaminated Site Management Plan (CSMP) is to detail the measures and procedures to be implemented for the handling and reuse of contaminated soils within Stages 7 and 8 of the Project to minimise effects on human health and the environment and ensure compliance with the requirements in Conditions 102-108 .	Given the CA status of the proposal, a SMP is required to comply with Regulation 9(2) of the NES-CS.
39	The CSMP must include: (a) the lateral and vertical extent, and nature of contamination as determined by the Detailed Site Investigation required by Condition 102 ; (b) the remediation objectives, if remediation is required; (c) remediation and site management mitigation measures and procedures; and (d) disposal locations and requirements for any material or soil removed from the Site.	I recommend no amendments to this proposed condition.
102	The Consent Holder must engage a SQEP to complete a Detailed Site Investigation	I recommend no amendments to this proposed condition.

	(DSI) for Stages 7 and 8 of the Project at least six months prior to the commencement of Stages 7 and 8.	
103	The DSI required under Condition 102 must: (a) be undertaken in accordance with the NES-CS; (b) delineate the lateral and vertical extents of the identified HAIL sites within Stages 7 and 8; and (c) determine if remediation is required.	I recommend no amendments to this proposed condition.
104	If contaminated materials or soils are discovered as part of the DSI required by Condition 102 , the Consent Holder must prepare and submit a Contaminated Site Management Plan (CSMP) in accordance with Condition 38-39 for certification in accordance with Conditions 22 - 26 .	I recommend no amendments to this proposed condition.
106	The excavation and re-use of materials or soils identified by the DSI required by Condition 102 must be undertaken in accordance with the certified CSMP and supervised and validated by a SQEP. Within three months of the completion of the works, the Consent Holder must submit a Site Validation Report confirming compliance with the certified CSMP to the Council.	I recommend no amendments to this proposed condition.
107	Any material removed from the Site must be disposed of at a facility authorised to receive such material, and the Consent Holder must provide the Council, with written confirmation of such disposal within 10 working days.	I recommend no amendments to this proposed condition.
108	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. The Works Completion Report must contain sufficient detail to address the following matters: (a) A summary of the works undertaken, including the location and dimensions of the excavations carried out and the volume of soil excavated; (b) Conditions of the final site contamination profile, including details and results of any validation testing undertaken (with a map of sampling locations and tabulated sampling results) and interpretation of the results in the context of the NES:CS and	I recommend the provision of a Works Completion Report (WCR) to report on the works completed in accordance with the CSMP. This recommendation is also with the view that the PSI & DSI point to one localised area (PMS08 (0-0.3 m bgl)) that is to be excavated and disposed of off-site to avoid the need for a long-term discharge consent.

	the AUP(OP) for the proposed lot; (c) Records/evidence of the appropriate disposal for any material removed from the site; (d) Records of any unexpected contamination encountered during the works and response actions, if applicable; (e) Any on-going monitoring and/or management measures required to minimise risks to human health or the environment as a result of the final site contamination profile. (f) Reports of any complaints, health and safety incidents related to contamination, and/or contingency events during the remedial works; and (g) A statement certifying that all works have been carried out in accordance with the requirements of the consent, otherwise providing details of relevant breaches, if applicable.	
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