



Belmont Quarry Development – Part A

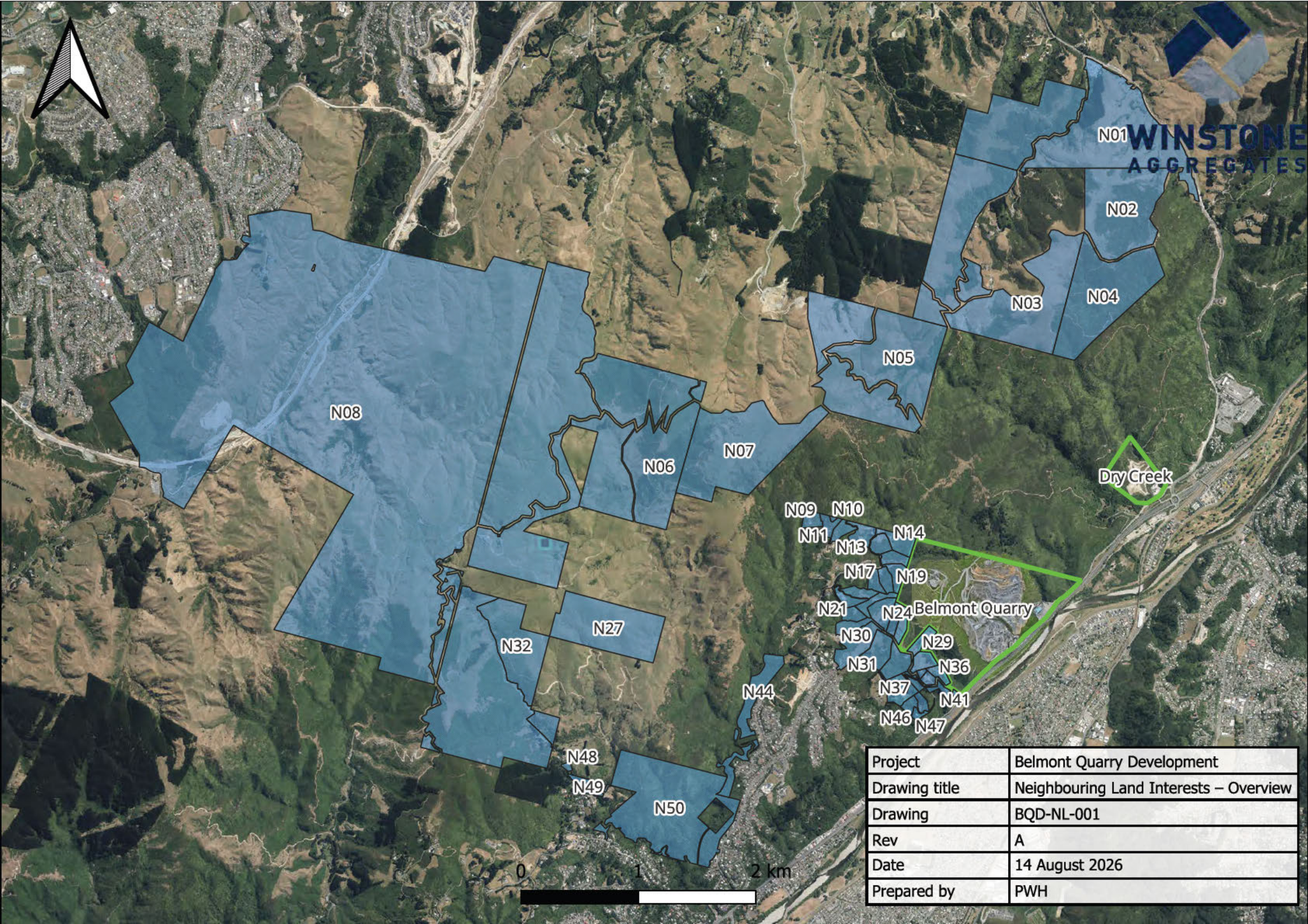
Substantive Application
Appendix A.4.1 – Section 29 Consultation Summary
Report Appendix A - C
Winstone Aggregates

16 August 2026

Appendix: A - Adjacent Properties overview map



WINSTONE
AGGREGATES



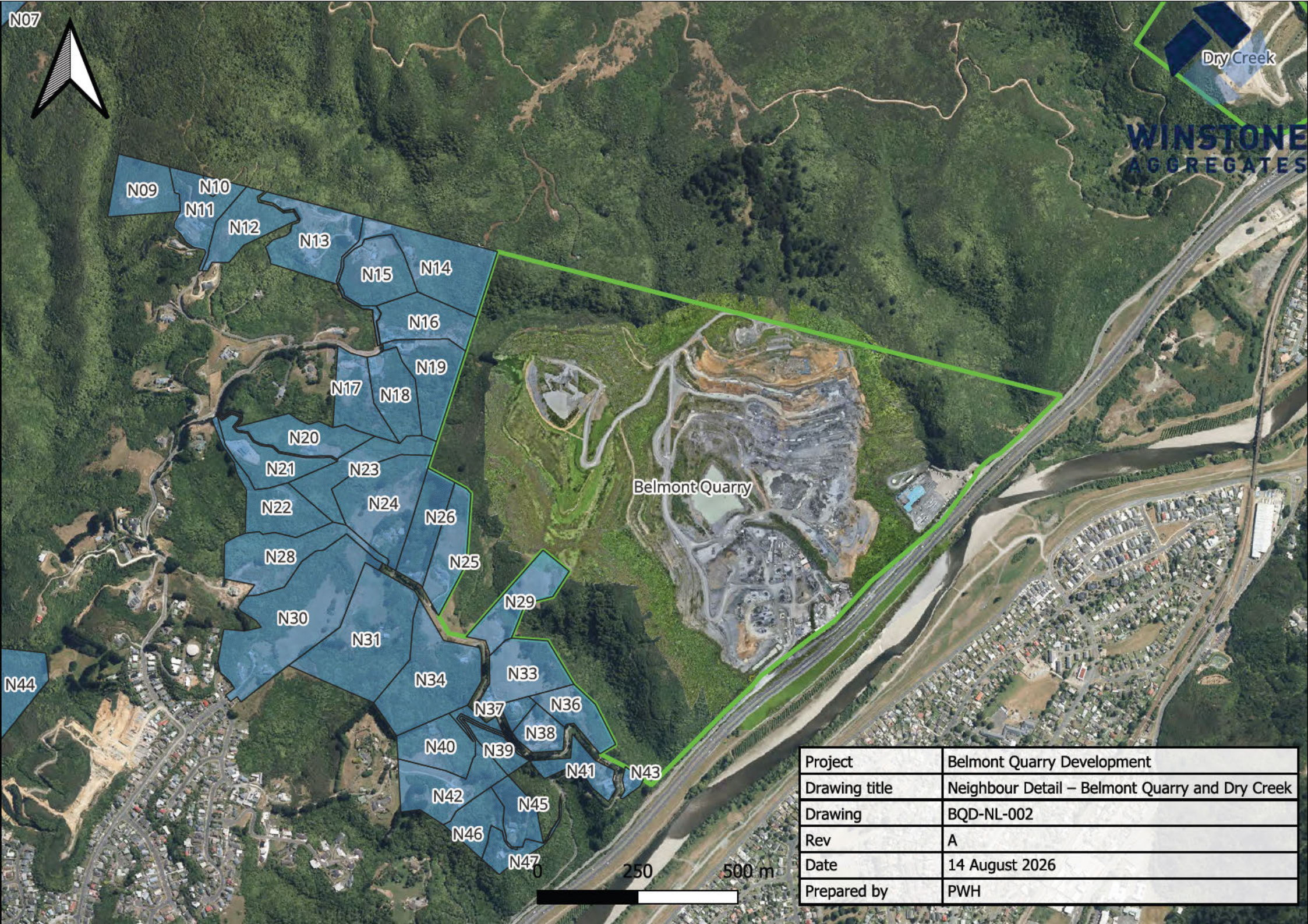
Project	Belmont Quarry Development
Drawing title	Neighbouring Land Interests – Overview
Drawing	BQD-NL-001
Rev	A
Date	14 August 2026
Prepared by	PWH

Map ID	Title	Legal Description	Owner
N01	1096764	Fee Simple, 1/1, Lot 1 Deposited Plan 367887 and Section 4 Survey Office Plan 560035, 1,143,820 m2	
N02	WN135/221	Fee Simple, 1/1, Section 15 Block IV Belmont Survey District, 434,632 m2	
N03	73189	Fee Simple, 1/1, Lot 5-8 Deposited Plan 318678 and Section 17 Block IV Belmont Survey District, 1,039,872 m2	
N04	WN56/229	Fee Simple, 1/1, Section 18 Block IV Belmont Survey District, 485,623 m2	
N05	WN762/52	Fee Simple, 1/1, Part Section 436 Hutt District, 929,765 m2	
N06	WN25B/235	Fee Simple, 1/1, Part Section 345-346, 433-435 Block III Belmont Survey District, 1,080,879 m2	Hutt City Council
N07	WN25B/233	Fee Simple, 1/1, Part Section 436 Block III Belmont Survey District, 588,817 m2	Hutt City Council
N08	785497	Fee Simple, 1/1, Section 2-3 Survey Office Plan 36635 and Section 4-6 Survey Office Plan 36636 and Section 7, 9-10 Survey Office Plan 36637 and Section 3 Survey Office Plan 368657 and Section 1, 3 Survey Office Plan 484502, 10,265,499 m2	Wellington Regional Council
N09	65643	Fee Simple, 1/1, Lot 30 Deposited Plan 316810, 20,855 m2	
N10	65646	Fee Simple, 1/1, Lot 38 Deposited Plan 316810, 1,843 m2	Hutt City Council
N11	65647	Fee Simple, 1/1, Lot 39 Deposited Plan 316810, 20,005 m2	
N12	126470	Fee Simple, 1/1, Lot 29 Deposited Plan 330785, 20,618 m2	
N13	WN57A/79	Fee Simple, 1/1, Lot 25 Deposited Plan 89316, 32,755 m2	
N14	WN57A/77	Fee Simple, 1/1, Lot 23 Deposited Plan 89316, 39,715 m2	
N15	WN57A/78	Fee Simple, 1/1, Lot 24 Deposited Plan 89316, 24,715 m2	
N16	WN55D/466	Fee Simple, 1/1, Lot 22 Deposited Plan 88394, 23,250 m2	
N17	WN55D/463	Fee Simple, 1/1, Lot 19 Deposited Plan 88394, 20,035 m2	

N18	WN55D/464	Fee Simple, 1/1, Lot 20 Deposited Plan 88394, 20,588 m2	
N19	WN55D/465	Fee Simple, 1/1, Lot 21 Deposited Plan 88394, 25,235 m2	
N20	WN50D/486	Fee Simple, 1/1, Lot 16 Deposited Plan 83679, 21,885 m2	
N21	WN50D/484	Fee Simple, 1/1, Lot 14 Deposited Plan 83679, 20,090 m2	
N22	WN48A/768	Fee Simple, 1/1, Lot 13 Deposited Plan 81542, 22,600 m2	
N23	WN50D/485	Fee Simple, 1/1, Lot 15 Deposited Plan 83679, 24,370 m2	
N24	WN46D/225	Fee Simple, 1/1, Lot 1 Deposited Plan 79918, 40,490 m2	
N25	WN19A/707	Fee Simple, 1/1, Lot 2 Deposited Plan 23363, 20,710 m2	
N26	WN6A/739	Fee Simple, 1/1, Lot 1 Deposited Plan 23363, 20,326 m2	
N27	WN20A/1000	Fee Simple, 1/1, Section 675-676 Hutt District and Part Section 677 Hutt District, 407,359 m2	Hutt City Council
N28	WN54D/684	Fee Simple, 1/1, Lot 1 Deposited Plan 87274, 31,760 m2	Major Gardens Limited
N29	WN19A/708	Fee Simple, 1/1, Lot 3 Deposited Plan 23363, 21,843 m2	
N30	WN54D/685	Fee Simple, 1/1, Lot 2 Deposited Plan 87274, 71,970 m2	Major Gardens Limited
N31	WN47A/692	Fee Simple, 1/1, Lot 1 Deposited Plan 80494, 57,450 m2	
N32	785498	Fee Simple, 1/1, Section 2 Survey Office Plan 484502, 265,203 m2	Hutt City Council
N33	WND3/1055	Fee Simple, 1/1, Lot 4 Deposited Plan 23363, 26,229 m2	
N34	WN47A/693	Fee Simple, 1/1, Lot 2 Deposited Plan 80494, 45,700 m2	
N35	WN42B/355	Fee Simple, 1/1, Lot 2 Deposited Plan 75558, 4,118 m2	
N36	WN25C/908	Fee Simple, 1/1, Lot 2 Deposited Plan 56216, 15,581 m2	
N37	WN45D/100	Fee Simple, 1/1, Lot 4 Deposited Plan 79113, 2,736 m2	Hutt City Council
N38	WN42B/354	Fee Simple, 1/1, Lot 1 Deposited Plan 75558, 10,384 m2	
N39	WN45D/99	Fee Simple, 1/1, Lot 3 Deposited Plan 79113, 7,432 m2	Hutt City Council

N40	WN45D/97	Fee Simple, 1/1, Lot 1 Deposited Plan 79113, 21,320 m2	
N41	WN43B/135	Fee Simple, 1/1, Lot 1 Deposited Plan 75637, 11,174 m2	
N42	WN45D/98	Fee Simple, 1/1, Lot 2 Deposited Plan 79113, 28,662 m2	
N43	WN43B/136	Fee Simple, 1/1, Lot 2 Deposited Plan 75637, 2,307 m2	
N44	WN59A/838	Fee Simple, 1/1, Lot 2-6 Deposited Plan 91313, 141,914 m2	Hutt City Council
N45	WN43C/164	Fee Simple, 1/1, Lot 1 Deposited Plan 76010, 12,954 m2	
N46	WN43C/165	Fee Simple, 1/1, Lot 2 Deposited Plan 76010, 14,071 m2	
N47	WN41C/923	Fee Simple, 1/1, Lot 2 Deposited Plan 73791, 8,612 m2	
N48	WN737/7	Fee Simple, 1/1, Lot 1 Deposited Plan 18931, 4,596 m2	
N49	WN34C/137	Fee Simple, 1/1, Lot 1 and Lot 4 Deposited Plan 64406, 29,596 m2	
N50	149170	Fee Simple, 1/1, Lot 2-4 Deposited Plan 336385, 649,786 m2	Hutt City Council

Appendix: A.1 - Adjacent Properties – Belmont Quarry and dry creek



N07



Dry Creek

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AGGREGATES

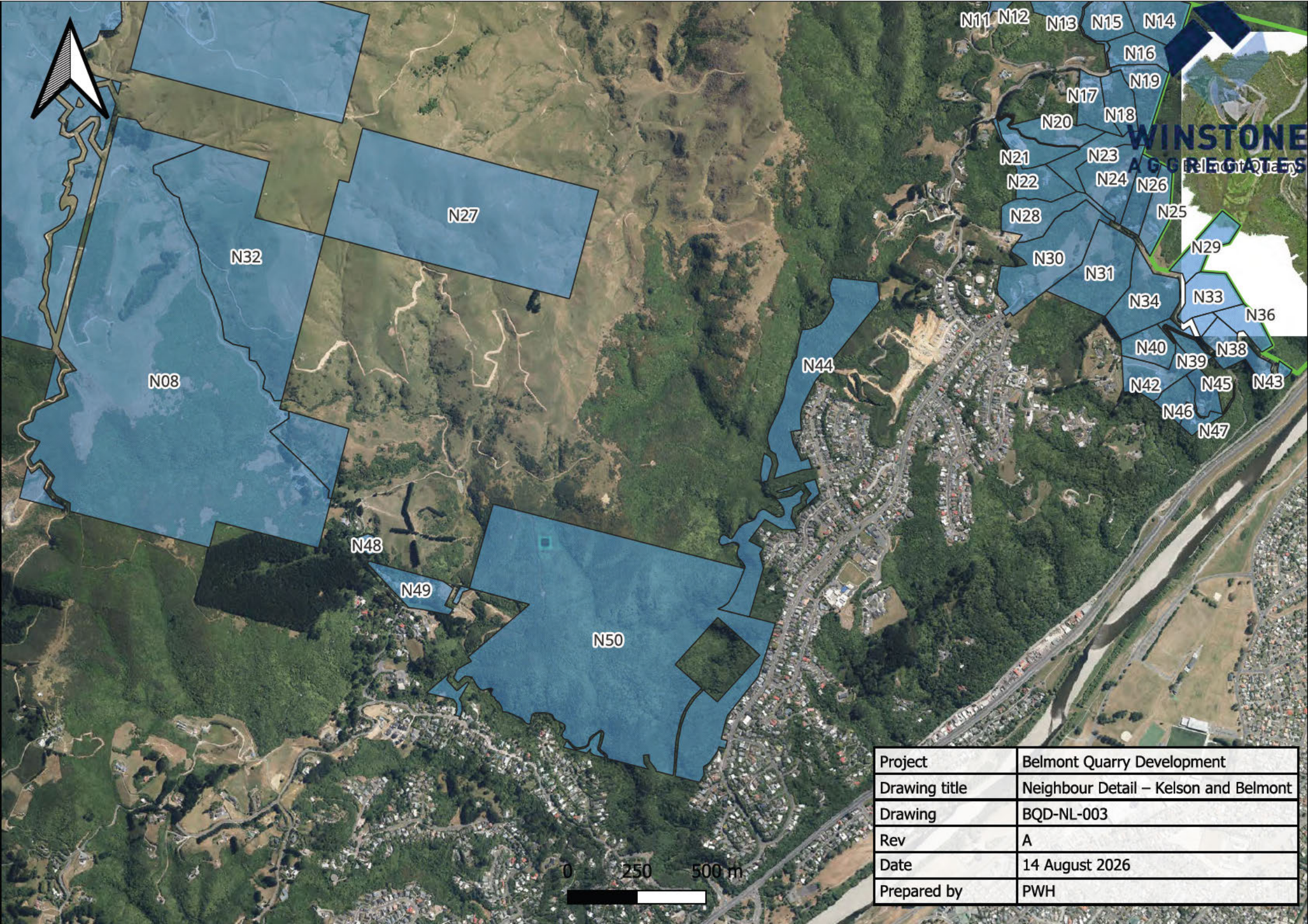
Belmont Quarry

Project	Belmont Quarry Development
Drawing title	Neighbour Detail – Belmont Quarry and Dry Creek
Drawing	BQD-NL-002
Rev	A
Date	14 August 2026
Prepared by	PWH

250

500 m

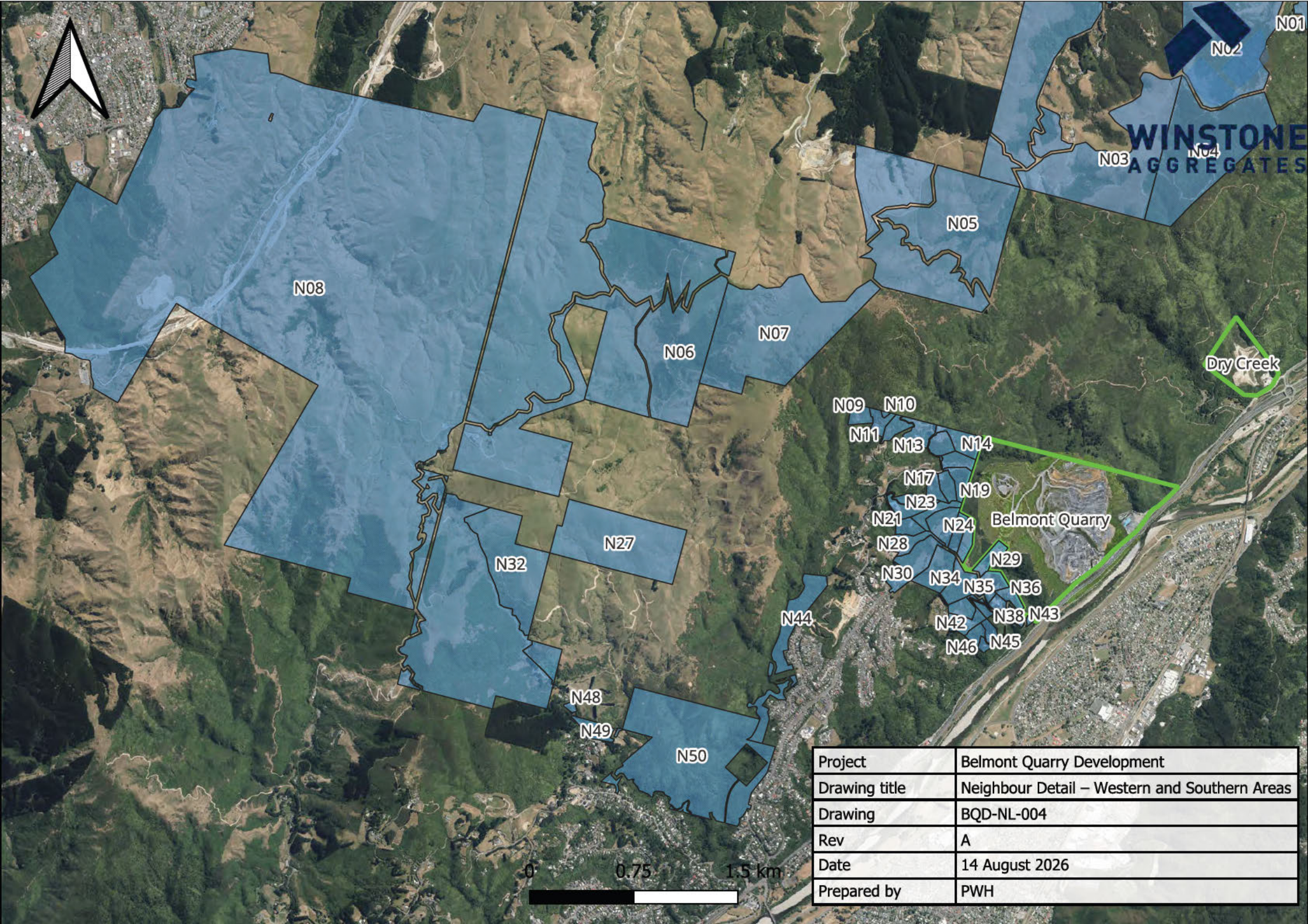
Appendix: A.2 - Adjacent Properties – Kelson and Belmont



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Project	Belmont Quarry Development
Drawing title	Neighbour Detail – Kelson and Belmont
Drawing	BQD-NL-003
Rev	A
Date	14 August 2026
Prepared by	PWH

Appendix: A.3 - Adjacent Properties Western and southern area



Project	Belmont Quarry Development
Drawing title	Neighbour Detail – Western and Southern Areas
Drawing	BQD-NL-004
Rev	A
Date	14 August 2026
Prepared by	PWH

Appendix: B -Consultation Register

**BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY**

Date	Group	Attendees	Project Team Attendees	Consultation type	Details
11/02/2026	Planning	Jessica Glover (JG) Andrew Banks (AC)	Shalini Sanjeshni (SS) Colin Hopkins (CH) Brooke Dales (BD)	Meeting	Introductory meeting to discuss the Belmont Quarry Substantive application.
11/02/2026	Planning	Anna Martin (AM) Tim Johnstone (TJ) Stephen Dennis (SD)	SS (SS) Colin Hopkins (CH) Brooke Dales (BD)	Meeting	Introductory meeting to discuss the Belmont Quarry Substantive application.
12/02/2026	Planning	Jesscia Glover	SS / CH / BD	Email	Feedback from the introductory meeting.
23/02/2026	Planning	JG / AB	CH / BD	Meeting	Project meeting and discussion on approach for review and input on specialist reporting
23/02/2026	Planning	JG / AB	CH / BD	Meeting	Project meeting and discussion on approach for review and input on specialist reporting
24/02/2026	Planning	SD	CH / BD / SS	Email	Feedback from introductory meeting, and example of condition structure.
02/03/2026	Planning	JG / AB	CH / BD / SS	Meeting	Discuss Ecology workstream
3/03/2026	Friends of Belmont Regional Park	SS	Craig Stansfield	Email	Reached out to reconnect with the group, provide an update on technical assessment and the substantive application, and renew the invitation to meet and discuss the project in light of the substantive application

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

09/03/2026	Planning	SD	CH / BD / SS	Meeting	Project meeting: updates on progress and timing for specialist reporting for HCC review.
09/03/2026	Planning	JG / AB	CH / BD / SS	Meeting	Project meeting: updates on progress and timing for specialist reporting for GWRC review. Discuss Ecology next steps
17/03/2026	Transpower	SS	Andy Eccleshall	Meeting	Issues raised during the land exchange process remain relevant to the substantive application. The timing of any new access track is not critical. Existing access is generally adequate for routine maintenance. Transpower wanted continued engagement as the design, staging and conditions were developed.
20/03/2026	Planning/ Ecology	JG/ AC/ Melanie Dixon	CH/ BD / SS / VK	Meeting	Workshop held to discuss ecological values, ecological accounting methodology, offset requirements, stream and wetland mitigation and opportunities for ecological offset within Belmont Regional Park. Agreement reached on ecological assessment approach and

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					further information requirements.
23/03/2026	Planning	SD	SS / CH / BD	Meeting	Discussions on outcomes of ecological discussions with GWRC, development of ecological offset proposals, and progress of specialists reporting including contamination, geotechnical, landscape and visual, archaeological, and erosion and sediment control assessments.
23/03/2026	Planning/Ecology	JG/ AB	SS/CH/ BD	Meeting	Follow-up discussion regarding draft ecological reporting, offset opportunities within Belmont Regional Park, timing of specialist Reporting, and future conditions discussions.
27/03/2026	Planning/ Parks/ Ecology	JG / AB/ Kim Broad (KB) / Kellie Benner (KB)	SS/ CH / BD / VK	Ecology and Parks workshop	Detailed workshop on ecological offset requirements and BOAM modelling, wetland and stream offset, and potential restoration areas within the Belmont Regional Park. Discussions included long-term protection mechanism and site selection process.

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

9/04/2026	Friends of Belmont Regional Park	SS and Ian Wallace	Craig Stansfield, Anthony Davis, Jonathan Ravens	Meeting, in person	Winstone sought to understand the Friends group's concerns regarding the proposed Belmont land exchange, ecological effects, recreational access, swamp maire planting, wetland loss, ecological fragmentation, pest management, rehabilitation performance, and the proposed improvements package. The Friends reiterated opposition to the proposal, expressing concerns regarding loss of park land, recreational access, ecological values, swamp maire accessibility, wetland removal, landscape impacts, and future quarry expansion. Winstone outlined the consenting process, substantive application pathway, and opportunities for ongoing engagement and review of draft conditions. The group indicated that, in their view, quarry operations should
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BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					remain within existing landholdings and eventually relocate elsewhere rather than expand into the proposed exchange area.
10/04/2026	Friends of Belmont Regional Park	SS and Ian Wallace	Craig Stansfield, Anthony Davis, Jonathan Ravens	Email	As a followup of the 9/4/26 meeting with Friends of Belmont Regional Park, Winstone offered to coordinate a site visit to the proposed DOC land exchange areas and invited the group to identify any specific technical report information they wished to review. The group was encouraged to provide a list of information request, with Winstone agreeing to source and provide the requested material.
24/04 - 07/05/2026	Friends of Belmont Regional Park	SS and Ian Wallace	Craig Stansfield, Anthony Davis, Jonathan Ravens	Email	Discussions regarding a potential joint walkover of the proposed land exchange/"give land" areas. Friends initially requested a Saturday visit. Alternative weekday options were proposed by Winstone due to team availability. Friends advised attendance would likely be low for the

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					proposed weekday options and requested that the site visit be deferred to the substantive application stage. Winstone's offer remained open.
20/04/2026	Planning	SD	CH / BD	Meeting	Review of draft technical reports, survey plans, contamination, landscape and visual, archaeology and geotechnical reporting. Discussions on specialists site visits and ecological offset proposal
04/05/2026	Planning	SD	Email correspondence	Email	No formal meeting due to leave. Project update provided by email
04/05/2026	Planning	JG / AB	CH / BDCH / BD	Meeting	Review of draft technical reports, including air discharge, contamination, ecology and sediment control and hydrology. Discussions on ecological offset site visit outcomes, draft conditions, Section 30 arrangements
18/05/2026	GWRC Councillor	SS	Ros Connelly	Email	Winstone provided an update on the Belmont Quarry Development, advising that the land exchange application had been lodged and was

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					progressing through DOC's process. An update was provided on timing for DOC's draft and final reports, progression of the substantive Fast-track application, completion of technical assessments, pre-application engagement with GWRC officers, and ongoing engagement with mana whenua.
18/05/2026	Planning	SD	Email correspondence (CH / BD)	Email	Project update circulated by email while SD was on leave. Update included progress on technical reviews, specialist feedback, and future review programmed.
18/05/2026	Planning	JG / AB	SS / CH / BD	Meeting	Discussions on technical review progress including air discharge, contamination, ecology, hydrology and erosion sediment control reports. Further discussions on ecological offset package development and review process.
15 / 06 / 2026	Planning	JG / AB	CH / BD	Meeting	Review of remaining comments on specialists reports, ecological offset practicality considerations,

BELMONT QUARRY – SUBSTANTIVE APPLICATION
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					and commencement of draft consent conditions
15/06/2026	Planning	SD	SS / CH / BD	Meeting	Discussions on consent conditions, geotechnical and noise review progress, and confirmation of approach to finalizing draft conditions.
15/06/2026	GWRC	Shalini Sanjeshni, Phernne Tancock, Rebecca Cotter, Duncan Ballinger, Phillip Heffernan	David Boone	Email/letter	Discussions on potential biodiversity offset and restoration areas associated with the Belmont land exchange, including restoration of park land adjacent to the proposed OBDA and the potential inclusion of the Heffernan Block. GWRC reviewed and amended draft wording intended to provide in-principle support for use of restoration areas, while ensuring this did not imply support for the wider quarry development proposal. The parties also discussed development of an Ecological Restoration Plan and GWRC's role in reviewing restoration methodology for land

BELMONT QUARRY – SUBSTANTIVE APPLICATION
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					within Belmont Regional Park
17/06/2026	GWRC Councillor	SS	Ros Connelly	Email	Winstone offered to provide a project briefing and update on the application.
26/06/2026	Greater Wellington Regional Council	SS	AB,	Email	Formal notification to lodge a fast track consent application under s29. Andrew confirmed receipt of notification and the Section 30
26/06/2026	Hutt City Council	SS	TJ, SD	Email	Formal notification to lodge a fast track consent application under s29
26/06/2026	DOC	SS	Amy Robinson	Email	Winstone provided formal notification under section 29 of the Fast-track Approvals Act of its intention to lodge the Belmont Quarry substantive application. Correspondence also included ongoing discussions regarding the substantive application, proposed land exchange, technical assessments, management plans, ecological offsets, lizard

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					relocation proposals, and staging of the proposed overburden disposal area.
29/ 06/ 2026	Planning	JG / AB	CH / BD	Meeting	Project status update, discussions on Section 30 correspondence, ecological offset package finalisation, lodgment programme, and ongoing coordination requirement.
30/06/2026	Planning	SD	SS / CH / BD	Meeting	Follow-up discussion on technical review comments, including geotechnical, noise, landscape and visual archaeological and contamination matters. Outstanding review advice and feedback pathways confirmed.
2/07/2026	QEII	SS	Daniel Bradfield, Lee Barry, Richard Bloomfield	Email	Winstone advised QEII that the substantive Fast-track application was being finalised and offered to provide a briefing on the proposal and its relationship to the land exchange.
2/07/2026	Transpower	SS	Andy Eccleshall	Email	Transpower's agreement that National Grid concerns could be managed through future consultation and management plan requirements, while

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					confirming that the OBDA design had been modified to avoid development beneath the transmission lines and advising Transpower of the proposed offset planting area
6/07/2026	Transpower	SS	Andy Eccleshall	Email	Transpower confirmed it was supportive of a deferred planting approach for the offset area, provided the consent conditions and management plan framework require consultation with Transpower and ensure compliance with National Grid safety requirements. Transpower provided example wording from a similar consent requiring engagement on planting restrictions and compliance with the Electricity (Hazards from Trees) Regulations 2003. Transpower also requested the opportunity to review the National Grid components of the substantive application prior to lodgement
7/07/2026	Fish and Game Council	SS	Helen Brosnan, Amu Coughlan	Meeting (online)	Fish & Game acknowledged the site is unlikely to provide significant sports fish habitat due to fish passage constraints but requested

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					assurance that appropriate erosion and sediment control measures and consent conditions would be implemented to minimise sediment-laden runoff entering Te Awa Kairangi/Hutt River, which support trout fishery. Meeting discussed the proposed staging of the development and the proposed Erosion and Sediment Control Plan (ESCP), sediment management approach and water quality monitoring requirements.
7/07/2026	QEII	SS	Daniel Bradfield, Lee Barry, Richard Bloomfield	Email	QEII responded on 7 July 2026 confirming that they were comfortable waiting to review the substantive application once lodged and did not require a separate briefing
13/07/2026	Adjacent Neighbours	SS	(87B Kaitangata Crescent, 89 Kaitangata Crescent, 92 Liverton Road, 104 Kaitangata Crescent, 116 Liverton Road, 148 Liverton Road, 174 Liverton Road, 180 Kaitangata Crescent, 184 Liverton	Letter	A project update letter was issued to adjacent landowners outlining progress on the Belmont Quarry Development project, including the proposed new overburden area. The communication advised that the project has

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

			Road, 198 Liverton Road, 200 Liverton Road)		been refined following community feedback and environmental investigations, highlighted completion of the DOC land exchange assessment, and notified stakeholders of the forthcoming Fast-track application to the EPA and potential future opportunities to provide comment.
14/07/2026	New Zealand Conservation Authority	SS	Rick McGovern-Wilson	Email	Winstone provided information relating to the Belmont Quarry project and substantive application. No meeting was held with NZCA. Previous correspondence and project information were made available to support consultation and keep the Authority informed of the proposal.
14/07/2026	Wellington Conservation Board	SS	Claire Jacobs	Email	Winstone advised that the Belmont Quarry Fast-track project was nearing lodgement of its substantive application and offered to either present

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					the project to the Board or provide a high-level information pack.
17/07/2026	Adjacent Neighbour (180 Kaitangata Crescent, Belmont)	SS	██████████	Email	██████████ reached out following receipt of engagement letter and was interested in understanding the proposal and potential effects on their property. Explained that the proposal relates to a new overburden disposal area (OBDA) within Belmont Regional Park, approximately 750 m from the property. Advised that the proposal is not adjacent to the property and that DOC land would remain between the quarry and the residence. Noted that technical assessments had been completed covering noise, dust, landscape, ecology, hydrology, and erosion and sediment control
20/07/2026	DOC	SS	Amy Robinson, Chris Williams, Leah McEnhill, Rhys Burns	Email	Winstone presented the Belmont Quarry substantive application and proposed OBDA development, including the development footprint, 10-stage development methodology, associated approvals and consents, and the draft Lizard Management

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					Plan (LMP). Discussions included the proposed relocation sites for northern grass skink and ngahere gecko within Belmont Regional Park, as well as rehabilitation and long-term management outcomes. A draft LMP was provided to DOC for review.
21/07/2026	Adjacent Neighbour (180 Kaitangata Crescent, Belmont)	SS	██████████	Email	██████████ request additional clarification if their property would be affected by surplus or any kind of smell issue. Advised that the air quality assessment does not predict noticeable dust or odour effects at the property. Explained that dust will be managed through water carts, speed controls and progressive rehabilitation. Confirmed there are no odour-generating activities associated with the proposal.
27/07/2026	New Zealand Game Council	SS	Jenny Wotten	Email / letter	Winstone provided updated information on the Belmont Quarry Development substantive application, specifically the proposed biodiversity offset planting with Belmont Regional Park, including the Heffernan Block revegetation area and

BELMONT QUARRY – SUBSTANTIVE APPLICATION
CONSULTATION SUMMARY

					proposed swamp maire planting location. The information was provided to keep the Council informed of the offset proposal associated with the substantive application. The Council reviewed the information and advised that its position remained unchanged. It raised no concerns and had no further comments on the proposal at that stage. The Council requested to be informed if future information indicated any effect on public hunting opportunities.
29/07/2026	Transpower	SS	Andy Eccleshall	Email	Following a telephone discussion, Winstone sought confirmation that a new access track is not currently required for Transpower's operation and maintenance activities and that the existing Buchanan's Track provides adequate access for routine maintenance. Winstone acknowledged that any future access upgrades required for heavy machinery would be

BELMONT QUARRY – SUBSTANTIVE APPLICATION
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					developed in consultation with Transpower and confirmed its commitment to ongoing collaboration regarding National Grid access requirements
31/07/2026	Transpower	SS	Andy Eccleshall	Email	Transpower subsequently confirmed that this understanding was correct and that the revised approach was acceptable and did not alter Transpower's position on the project.

Appendix: C Local Authorities

Appendix: C.1 Greater Wellington Regional Council and Hutt City
Council meeting minutes

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 29.06.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- Apologies: W: Shalini Sanjeshni

Agenda:

- General status updates

Item	Comment	Action
• Lodgment timeline	Update on time frame	
• S30 request	Lodgement -s30 correspondence from WA	SS to circulae
• Offset Package	SS working on offset package confirmation	SS to provide update
• Other action	Pencil in a meeting for next Monday – just incase anything comes up for the s30	JG / CH set up meeting

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 15.06.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- Apologies: W: Shalini Sanjeshni

Agenda:

- Draft Tech Reports

Item	Comment	Action
• Draft Technical Reports	See email of Friday – comments in any further feedback to confirmed. ESC comments only outstanding	
•	JG to follow up on Ecological offset and practicalities about extent of planting achievable	
•	Conditions next phase. JG is away next week Tuesday to Friday CH to circulate for end of the week and JG to review for omissions and errors and sed to specialists.	

Next meetings:

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 18.05.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- W: Shalini Sanjeshni

Agenda:

- Draft Tech Reports

Item	Comment	Action
• Draft Technical Reports	Air Discharge Comments are being finalized. Timing for complaints history JG) nothing for OBDA, some dust from quarry operations, was sometime ago. Should be covered by addressing other dust sources and cumulative consents. Contamination Reports – slightly different approach the reports will be updated. That relates to the nature of the feedback. We should have those with you this week. Ecology / ESC and Hydrology with council (and geotech) JG – Timing: Ecology /hydrology end of this week ESCP – expecting 10 day – JG to confirm.	JG to send through details.
•	Offset for ecology – get review from Melanie (Council consultant). Then confirm the areas and practicalities, as well as consenting matters.	

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 04.05.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- W: Shalini Sanjeshni

Agenda:

- Draft Tech Reports
- Belmont Regional Park update
- Timing update

Item	Comment	Action
• Draft Technical Reports	Process following feedback Written comments – similar to a s92, and if GWRC can then confirm matters closed out. Which conditions would apply. Meeting Conversation around the conditions Reports updated for submission Air Discharge Comments back – thanks Spoken with PDP, they feel they can respond. Confirm timing for complaints history Contamination comments - timing Ecology / ESC and Hydrology all updated	Contamination comments due back this week. Air discharge complaint history due this week.
•	Belmont Regional Park offset.	

	Any more discussion VK – detailed response to be provided.	
•	Timing update. We are working through with SS and PH this morning, but we are tracking for the package to be ready in July. For GWRC, I'll come back to you on timing. But that will mean finalising report May, end of May/June we'd be looking at discussions on conditions and any workshops on those.	
•		

Next meetings:

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 20.04.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- Apologies: W: Shalini Sanjeshni

Agenda:

- Draft Tech Reports
- Other Business

Item	Comment	Action
• Draft Technical Reports	Air Discharge (slight delay on comments) Contamination (expecting comments 1 May): Just note that the OBDA would come SLUR to be submitted at the time the consents are sought. Ecology TBC ESC and Hydrology -	CH to circulate.
•	Feedback from SV re Belmont Regional Park for offset. - Two sites: Boulder challenging areas with access. - Heffernan area – smaller but less exposed, stream and wetland habitats. Good potential, limitation of the Transpower	
•	Conditions – get the feedback If any bespoke conditions are identified in the council review, we'd be happy to receive.	CH to confirm

•	S30	CH to update
•	Councillor Interest in application. JG and AB and David Byrne (land exchange) to attend a Councillor workshop. Will be recorded and live streamed 2nd June.	

Next meeting:

- 6 April project Group
- Ecology TBC

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

Ecology Meeting with Greater Wellington Regional Council (Planners and Parks)

DATE: 27.03.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks / Kim Broad / Kellie Benner / Bruce Forster
- DCS: Colin Hopkins / Brooke Dales
- W: Shalini Sanjeshni
- Blue Green Ecology – Vaughan Kessing

Agenda:

- Summary of the Proposal and approach to offset
- Offset requirements
- Potential for offset within the Belmont Regional Park / or other park
- Process for agreeing any offset location and expectations if agreed.
- Other Business

Item	Comment	Action
• Summary of Proposal	Substantive Application to enable the disposal of overburden with land to be exchanged from Belmont Regional Park Substantive application follows an application of Land exchange Note that SA is made on the basis that the LE has been agreed.	VK to provide the SEV scores.
• Offset Requirements	VK and his colleagues have 9ha of seral broadleaf shrub and forest to be cleared 416m of Stream to be recalled Swamp marie, ramarama, and coprsma rubra. Wetland (0.2ha)	

	The proposal sees 15ha restoration of the OBDA at the completion of the project Streams are intended to be recreated within the site (streams) Specific species - Offset package required to address Proposing to use BOAM model for the offset. Used species richness from plot assessments and compared with national database. VK to summaries the qualities of the land required. Pasture? 18ha? Wetland – needs to be offset (0.2ha) Specific species? Low production pastures. Would also become the lizard transplant site.	
Potential for offset within the Belmont Regional Park or other Regional Park	Discussion with Council – what land is available/ Multiple parcels / single parcels Wetland? Kellie B – still 1000ha begin grazed. Tenure for the grazing license has expired in January. GWR working through what that would mean. GWR looking to phase out grazing with the park. No stock on the park Some grazing to be provided in some parks [get copy of the plan from GWR for the retirement of] Limited budget for replanting/retirement Looking at 100ha a year.	[KB to send copy of the Belmont Plans]

	Areas seem feasible. Looking for a return to indigenous forest across the Regional Park Any limitations on the areas or preference for blocks? Note from Jessica – there needs to be protection in perpetuity – so access would need to be ensured. Note from Andrew on perpetuity – for the land that is regenerated – that land will be constrained for future land use i.e. would be protected. Would consents be required for the tracks etc.? and would that need to be considered as part of the Substantive Application. (NOTE We would need to know what the best site is so that we can include this). Note from Kim – about a previous project offset. Planting white line paddock – small scale. But really challenging – large plant loses as challenging conditions (drought, hares, deer) – recommend targeting sheltered areas Note from Bruce – would need to confirm location for tracks that need to be retained.	
Process for agreeing Offset location and expectations	How do we confirm which area is suitable What mechanism needs to be used for the offset area? [would need some guidance on what that should be – but that would need to be included]	[site visit to be arranged]
Other business.		

Actions:

SV and identification of appropriate sites.

██████████

Likely to be VK SS / GWRC – Melanie. (book a couple of dates)

WILL NEED TO CONFIRM WHETHER ADDITIONAL CONSENTS WILL BE REQUIRED.

Confirmation of process to confirm the site/extent (Alongside the review of the draft Ecological report – which will have the figures).

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 23.03.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- W: Shalini Sanjeshni

Agenda:

- Ecology Update – timing
- Draft Tech Reports
- Other Business

Item	Comment	Action
• Ecology Update	Thanks for the meeting last week. VK is working on his draft report – we proposed to submit that for review. -No other comments from the meeting. - JG did speak with Kim Meeting to arrange with Kim – discuss opportunities or offsets within the BRP - Belmont regional park ranger and other colleague.	JG / AB to discuss with KB and send availability VK to discuss key qualities.
• Draft Technical Reports	Update to my email last week. Air Discharge (awaiting some final updates) Contamination (same) Ecology at the end of the week ESC and Hydrology will be next week as they will require internal review.	CH to circulate.
•	Conditions – to discuss possibly in two weeks time	CH to confirm
•	CH to extend the calendar inbvie	CH to update

Next meetings:

- 6 April project Group
- Ecology TBC

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

Ecology Meeting with Greater Wellington Regional Council (Planners and Parks)

DATE: 20.03.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks / Melanie Dixon (Ecology)
- DCS: Colin Hopkins / Brooke Dales
- W: Shalini Sanjeshni
- Blue Green Ecology – Vaughan Keesing

Agenda:

- Existing Values
- Proposed Ecological Accounting model
- Proposed approach to Offset (noting numbers not confirmed)
- Potential for offset within the Belmont Regional Park / or other park
- Process for agreeing any offset location and expectations if agreed.
- Other Business

Item	Comment	Action
• Existing Values	MD: - A little concern about the SEVs being completed as a condition, best practice that it is provided upfront. CH to flag with VK, but will be required as baseline. - Downstream – threat species need to be identified. Outlined that Principle that flows will be maintained beyond the site through the ESCP and on completion. Approach agreed. Values as presented in the Land Exchange and as viewed on site, accepted. AB reinforced that all natural wetlands within 100m need to be mapped.	VK to provide the SEV scores.
• Proposed Ecological Accounting Model	Proposing to use BOAM model for the offset. Used species richness from plot	

	assessments and compared with national database.	
Proposed approach to offset	Restoring is the first component (15ha of the site), but comes with time scale. Offset area proposed (currently 18ha), and timeframe (i.e. year one) Will also be location for lizards. BOAm also for wetland loss of 0.07ha. And offset required 0.2ha new wetland to be recreated. Wetland restoration to be built in i.e. not isolated. Stream component: recreated on site, and maintained beyond the site. Consideration to be given to the riparian timelag (VK!!!) Individual species components: -	
Potential for offset within the Belmont Regional Park or other Regional Park	SS advised that interested in discussing with Kim whether the BRP is an option. To advice the quality of land that is required – area, existing land quality pasture? What sort of Project team to produce a discussion document. Include calculations including model. Send SEV.	
Process for agreeing Offset location and expectations		
Other business.		
Internal Discussion after	Approach to streams – VK discuss riparian planting and SEV timelag. Recreation of Streams - esseitnal also for ensuring flows go beyond the site.	

	Timeframe VK to get the SEV scores. Map and confirm all wetlands within 100m, and downstream environments. Agreed to be the draft report rather than a separate report. Draft Ecological report – VK to provide for Friday next week.	
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BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 09.03.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- W: Shalini Sanjeshni

Agenda:

- Ecology Update
- Other Business

Item	Comment	Action
• Ecology Update	We are working through what the variations of the offset and mitigation package will look like. Would be useful to confirm methodology and scope. SS – if working through offset – should invite Kim along. Particularly around any offsetting opportunities in the regional park AB – identified that conversations will need to be had with DoC too as they are the landowner (whereas GWRC administer the park).	CH to confirm and book meeting (will be for an hour) 16th March – 9am or 2pm on wards. JG to confirm timing To include JG (AB) / SS / VK / GWRC Ecologist and Parks person.
• Hydrology	Awaiting some Engineering details to come through. We are however expecting that flows from the site will be maintained – by final land from and through ESCPs during works.	
• Draft Technical Reports	Expecting first batch through early this week. Circulate next Monday and to be discussed 23 MaRCH - Air - Contamination	CH to circulate.
•	Conditions	Conditions to come later this week

Next meetings: 16 March Ecology / 23 March project Group

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 02.03.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- Apologies: W: Shalini Sanjeshni

Agenda:

- Ecology Workshop
- When/who/where
- Structure
- Other Business

Item	Comment	Action
• Ecology Workshop	Discussion on meeting approach and structure.	CH to circulate agenda/minutes
• When/Who/where	Ecology workshop Include preferred approach – issue a draft and the GWR provide targeted questions -i.e around model. Workshops more for design	-CH to confirm the process for meeting going forward following Project Team Ecological meeting.
•	confirm methodology and assessments for existing values / ecological accounting methods / to enable a discussion on any proposed package of mitigation/offset/compensation	-
•	Confirmed that the SVs went well.	
•	Preference to review the draft technical reports. Ecology to be confirmed Planners to attend.	

•	Conditions – still working through	
•	Next Monday: DCS to update to Ecology (and hydrology)	

Next meeting: 9 March (unless required earlier following site visits)

BELMONT QUARRY

Project Meeting with Greater Wellington Regional Council

DATE: 23.02.2026

Attendees:

- GWRC: Jessica Glover / Andrew Banks
- DCS: Colin Hopkins / Brooke Dales
- Apologies: Winstone Aggregates (W): Shalini Sanjeshni

Agenda:

- Project Meeting Structure
- Review of Council Feedback
- Outcome of meeting with GWRC/HC
- Specialist Site Visits
- Update on Specialist Inputs
- Other Business

Item	Comment	Action
• Project Meeting Structure	Discussion on meeting approach and structure.	CH to circulate agenda/minutes
• Review of Council Feedback	Council feedback received – very helpful	-
• Outcome of meeting with GWRC/HC	Completed. Agreement on consistency of specialists where required.	-
• Specialist Site Visits	Postponed – to be held Wed 25.02.2026 for Ecology, Hydrology, and Flooding	JG to advise if any issues arising following SV
• Update on Specialist Inputs	DCS update: Specialists are briefed and are working to provide an initial assessment this week.	CH to provide update at next meeting / liaise with JG to book any specialist meetings should they be required.
• Other Business	GWRC progressing with a set of their preferred conditions	JG to circulate.

Next meeting: 2 March (unless required earlier following site visits)

BELMONT QUARRY

Project Meeting with Hutt City Council

DATE: 30.06.2026

Attendees:

- HC: Stephen Dennis
- DCS: Colin Hopkins / Brooke Dales
- W): Shalini Sanjeshni

Matters for Discussion:

Follow up on specialist reports and comments:

- Geotech: Comments on Friday Circulated? Now circulated.
- Noise and conditions: Further feedback to come
- Draft L&V: final version with SD to be circulated.

Archaeological – short feedback to be provided.

Contamination response (will be the same as to GWRC)

BELMONT QUARRY

Project Meeting with Hutt City Council

DATE: 15.06.2026

Attendees:

- HC: Stephen Dennis
- DCS: Colin Hopkins / Brooke Dales
- Winstone Aggregates (W): Shalini Sanjeshni

Matters for Discussion:

Short meeting - confirmed details in email on Friday, and progress with draft conditions (CH and SD)

Details to come back from SD on Geotech and Noise

SD happy for approach on conditions

Nothing else required.

BELMONT QUARRY

Project Meeting with Hutt City Council

DATE: 18.05.2026

SD on leave. Email sent in lieu of meeting.

Matters for Discussion:

Draft Agenda set out below for future:

Agenda:

Item	Comment	Action
Draft Technical Reports	Confirm process following feedback Noise and vibration – initial comments back early indication is that they won't work = available for a meeting Working to finalise our comments for L&V Timing: - Contamination (expected last week – update) - Archaeology (only SD to review) NOTE: we are progressing with pre-app meetings - Geotech – review starting wed? may need a SV. With GW To Lead - Ecology (completely with GW)s - ESCR - Hydrology	\
•		
•		

Next meeting:

BELMONT QUARRY

Project Meeting with Hutt City Council

DATE: 04.05.2026

SD on leave. Email sent in lieu of meeting.

Matters for Discussion:

Agenda:

Next meeting:

BELMONT QUARRY

Project Meeting with Hutt City Council

DATE: 20.04.2026

Attendees:

- HC: Stephen Dennis
- DCS: Colin Hopkins / Brooke Dales
- Apologies- W: Shalini Sanjeshni

Matters for Discussion:

Agenda:

- Draft Reports
- Conditions
- S30
- Other Business

Item	Comment	Action
• Draft Technical Reports	Update from my email last week - Survey plans comments received (what is the purpose of Lot 10 easement – given what is being vested, it could be framed as if the land behind is being vested, what is being created with the smaller allotment. - Contamination L&V – good to go this week. - Noise early this week - Archaeology (will confirm timing) - Geotechnical ESCP /	CH to circulate.
• Site visits	Who: L&V When:	CH – ask if there some days for a SV

• Updates From HC	Noting at HC end.	
• Ecology update	Looking at sites in Regional park for offset	

Next meeting: 23 March (unless required earlier following site visits)

BELMONT QUARRY **Project Meeting with Hutt City Council**

DATE: 23.03.2026

Attendees:

- HC: Stephen Dennis
- DCS: Colin Hopkins / Brooke Dales
- W: Shalini Sanjeshni

Matters for Discussion:

Agenda:

- Ecology Update
- Other Draft Reports
- Other Business

Item	Comment	Action
Ecology Update	Met with GWRC and Melanie Productive – agreed on values as defined through LE process. Use of BOAM model for offset Discussed a range of offset options Draft Ecological report can be progressed and to be circulated – timing end of this week.	SD confirmed that the GWRC will take the lead. CH to update following
Draft Technical Reports	Update from my email last week - Survey plans to circulate - Contamination (likely that GWRC will take care of that). - Noise early this week - Archaeology (will confirm timing) Geotechnical – ESCP /	CH to circulate.

	Land and Visual / Draft to be circulated this	
• Updates From HC	Noting at HC end.	

Next meeting: 23 March (unless required earlier following site visits)

BELMONT QUARRY Project Meeting with Hutt City Council

DATE: 09.03.2026

Attendees:

- HC: Stephen Dennis
- DCS: Colin Hopkins / Brooke Dales
- W: Shalini Sanjeshni

Matters for Discussion:

Agenda:

- Ecology Update
- Other Business

Item	Comment	Action
Ecology Update	Any feedback from HC ecologist following site visit? We are working through the methodology and offset mitigation package – arranging a meeting next week with the GWRC which will also look at opportunity within the regional park	SD confirmed that the GWRC will take the lead. CH to update following
Conditions	Thanks for circulating the feedback and condition for structure, those are really helpful	
Draft Technical Reports	Expecting first batch through early this week. Circulate next Monday and to be discussed 23 March - Contamination (likely that GWRC will take care of that). - Noise - Updated Survey plans and comments which we'd like checked.	CH to circulate.
Updates From HC	SD away Thursday / Friday.	

Next meeting: 23 March (unless required earlier following site visits)

BELMONT QUARRY

Project Meeting with Hutt City Council

DATE: 23.02.2026

Attendees:

- Hutt City (HC): Stephen Dennis
- DCS: Colin Hopkins / Brooke Dales
- Apologies - Winstone Aggregates (W): Shalini Sanjeshni

Matters for Discussion:

Agenda:

- Project Meeting Structure
- Council Feedback / Conditions
- Outcome of meeting with GWRC/HC
- Specialist Site Visits
- Update on Specialist Inputs
- Other Business

Item	Comment	Action
• Project Meeting Structure	Discussion on meeting approach and structure.	CH to circulate agenda/minutes
• Council Feedback / Conditions	Stephen to circulate comments Examples	SD to circulate
• Outcome of meeting with GWRC/HC	Met with GWRC last week. Agreed on experts to share. Discussed conditions and formatting, and how the conditions meetings would work.	-
• Specialist Site Visits	HC have visited the site. Ecologist still to visit the site and will do so with GWRC.	-
• Update on Specialist Inputs	DCS update: Specialists are briefed and are working to provide an initial assessment this week.	CH to provide update at next meeting / liaise with SD to book any specialist meetings should they be required.
• Other Business	N/A	

Next meeting: 9 March (unless required earlier following site visits).

Appendix: C.1.2 Technical reports comments

Subject: Belmont Quarry Fast Track Application – Ongoing ecology review and response

Attention: Jessica Glover, Resource Advisor (Environmental Regulation) Greater Wellington Regional Council

From: Melanie Dixon, Principal Ecologist

Date: 19 June 2026

1 Introduction

This memo has been prepared in response to:

BlueGreen (2026). *Belmont Quarry OBDA Ecology Review Responses*, memorandum prepared for Winstone Aggregates, 11 June 2026

It concentrates on the remaining areas of disagreement or areas where clarification would still be useful.

2 Response areas

2.1 Intermittent and Ephemeral Stream Boundary

We took the following statement on page 46 of the Ecological Assessment “*The mapped western tributaries were assessed as being predominantly ephemeral at and above the OBDA “line” but that division between intermittent and ephemeral is highly variable and the eDNA data collected in 2026 suggests that the northern western intermittent sections may be a little further up the catchment than depicted in the map below.*” to mean that the boundary between intermittent and ephemeral in the northwestern tributary is further upstream than mapped in Figure 21. This matter can be simply clarified in the next version of the ecological assessment.

2.2 Significance

Dr Keesing and I disagree on the significance of the vegetation within the OBDA. This may be an area where we will need to ‘agree to disagree’; however, I have set out my reasoning below to explain why I consider the area to be significant.

Firstly, by way of background, significance assessments are different from a value assessments in that they are binary (i.e., is the area significant or not?) and follow NPS-IB criteria whereas the value assessments are on a scale (Very High, High, Moderate, Low, Negligible) and EIANZ guidelines¹.

The area mapped as Ridgeline Exotic Treeland has an indigenous understory and is habitat for indigenous fauna. My assessment is that it is significant as it is located in an Acutely Threatened LENZ (Land Environments of New Zealand) environment (thereby meeting C. Rarity & Distinctiveness 6(d)). It is part of a corridor of vegetation linking more mature vegetation within Belmont Regional Park² (thereby meeting D. Ecological context 3(c)).

I would then not exclude the area mapped as gorse / pasture from the area I consider significant given its relatively small size, its fauna values, and the fact it is clearly on a trajectory towards indigenous forest³.

2.3 Values

The Ecological Assessment identifies the overall OBDA as having *moderate* value (Section 8.5) which I agree with.

I disagree with the *negligible* value placed on the Ridgeline Exotic Treeland. This vegetation community has a reasonably diverse and well-developed indigenous understory and seedlings/saplings of at least one future canopy tree (rewarewa) as well as being habitat for indigenous fauna. My assessment of its value is set out below in Table 1 below. I consider the pasture / gorse area as having *low* value (compared with Dr. Keesing's *negligible*), but this area of disagreement is less important, given it is only a small portion of the OBDA.

Table 1: My assessment of the value of the Ridgeland Exotic Treeland

Assessment matter	Assessment Comment	Qualitative Scoring
Representativeness	Not representative.	Low
Rarity/distinctiveness	Likely habitat for North Island Robin ⁴ National priority for protection given LENZ threat status	Moderate
Diversity and pattern	Not diverse, nor showing diversity in pattern.	Low
Ecological context	Part of a corridor of vegetation linking more mature vegetation within Belmont Regional Park. Thought to be important to indigenous birds.	Moderate
Overall Assessment		Moderate

¹ Roper-Lindsay, J., Fuller S.A., Hooson, S., Sanders, M.D., Ussher, G.T. 2018. *Ecological impact assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems. 2nd edition.*

² See Figure 16 of the Ecological Assessment – this is an important corridor for birds.

³ See Figure 5 of the ecological assessment showing the progress of natural regeneration

⁴ North Island Robin habitat description from NZ Birds online is: "Robins occur in mature forest, tall scrub, and exotic plantations, particularly those that are fairly mature and have patches of shrubs as an understorey. They seem to favour moist areas where there is an open understorey under a closed canopy."

<https://www.nzbirdsonline.org.nz/species/north-island-robin>

2.4 Effects

2.4.1 Hydrology

Hydrology warrants a discrete assessment section in the final Ecological Assessment, as it is the primary driver of wetland function and condition. Potential hydrological effects should therefore be evaluated and described even if this description is brief and relies on the expertise of other technical specialists. Council's reviewer in this area (Mr Brydon Hughes)⁵ has recommended monitoring of water levels within wetlands is required to ensure any hydrological changes resulting from the OBDA do not result in adverse ecological effects on significant wetland vegetation, noting the extra caution required given the presence of the threatened swamp maire.

2.4.2 Level of effects

The comment relating to the EIANZ (2018) guidelines not being followed relates to the lack of assessment on impacts on Ridgeline Exotic Treeland and Gorse-Pasture area in Table 17.

Ecological value is not determined solely by canopy composition. Exotic-dominated ecosystems can still provide important habitat, ecological functions, connectivity, and support for indigenous species. The EIANZ guidelines specifically note that introduced species "still need to be evaluated because they can have ecological value in certain circumstances", including "value as habitat for indigenous species"⁶.

2.5 Proposed offsetting

We recommend that this information is provided as a separate standalone report (or appendix) given that ecological assessment is already 80 pages long, and offsetting assessments are by their nature comprehensive. As noted above, the value of the 4.43 hectares of the Ridgeline Exotic Treeland needs to be assessed and it needs to be included in the offsetting calculations.

To assist in speeding up our eventual review of this, we request the accompanying excel files are also provided for offset calculations (both BOAM and SEV models).

2.6 Management Plans

The memo confirms three management plans will be provided, namely:

1. OBDA clearance management;
2. On site restoration plan (streams and terrestrial habitat); and
3. Ecological offset plan.

⁵ Brydon Hughes (LWP Ltd), Belmont Quarry Fast Track Application – Review of Hydrological Assessment, report prepared for Greater Wellington Regional Council, dated 27 May 2026.

⁶ Pg 68

This approach seems reasonable. We recommend that drafts, or at a minimum a detailed description of the contents are provided for review.

Prepared by:
Melanie Dixon

[Redacted]

Principal Ecologist

[Redacted]

Reviewed by:
Dr Gareth Tallor

[Redacted]

Director and Ecologist, CEnvP

[Redacted]

Winstone's, Belmont OBDA Ecology Review responses

To: Shalini Sanjeshni
Project Coordinator,
Winstone's aggregates

From: Dr Vaughan Keesing

Date: 11.06.2026

Project title: Belmont Ecology

Dear Sir

Ms Melanie Dixon (Collaborations) acting in review for GWRC with respect to freshwater ecology and biodiversity, has responded on the 19 May 2026 with commentary of her review of the ecological assessment *Belmont Quarry OBDA Development: Ecological Values, Effects and their Management* for the substantive application by Winstone Aggregates (WA), at Belmont, Lower Hutt.

We appreciate the review and, in the following clarify some miss interpretation or matters that were not clear in the ecological reporting.

The conclusion of the review (it appears to us) is that **three plans**, one site OBDA clearance management (faunal and species management), an onsite restoration plan (streams and terrestrial habitat) and the ecological offset plan require drafting.

Description and Context

Firstly, we note that while the land exchange is 23.86 ha the application for overburden deposition only involves ~16 ha of that area (the OBDA) and several haul roads / tracks.

There is general agreement with the area's description. However, the reviewer suggests that the boundary between intermittent and ephemeral in the northwestern tributary is further upstream. We consider that the placement is representative of a fair location to differentiate between ephemeral and intermittent stream given that in this tributary that boundary shifts up. There should be no material change to the outcome whether the boundary indicated should be further upstream or not as the recreation of channel in stage 2 will effectively return the hydrological state of that end of the tributary (remedy the effect).

The reviewer requests that we the following data to the report (which we shall do):

- plot data, species lists and plot locations all of which are in the land exchange report and can uplift and supply in this report also,
- SEV full tables, which we shall do,
- eDNA data, which we shall also append.

With respect to the values assessment, while it appears the reviewer accepts the final value assessed, we do not understand the comment from the reviewer that the report "talks down" the threat status of the OBDA". The report outlines that there are a range of values low to high present but that some of those values rest on a single or a few individuals of a taxa, not a community of (say) swamp maire or a population of nth island robin. Rather than talk down the value it simply adds clarity by pointing out that the values assessed in an otherwise

early seral vegetation stage recovering from farmland use are raised by site uncommon presences of a some species. In the absence of the 14 swamp maire (over 23 ha) or 24 Ramarama and ngāhere gecko the most likely evaluation of the site over all would be low not moderate.

One aspect we must disagree on is that following on from this discussion the reviewer simple states that *"I also consider the entire OBDA area to be significant. While there are patches of non-native vegetation, I would not exclude them from the larger corridor of vegetation that also forms the Key Native Ecosystems (KNE)5 Belmont-Dry Creek."*

The assessment recognises that 9 of the 16 ha affected (56%) is exotic grasslands, pine and blackberry scrub which is of low value and not significant and because of the large area of that exotic community does not simply incorporate the area into the consideration of the whole or as a subpart of the better more advanced native regeneration. We consider it is entirely appropriate to first separate out the main assemblages, different in degrees and assess them as individual communities of the area firstly and not lump them or the exotic tree land into one assessment hiding both better and poorer elements.

Vegetation type	Representativeness	Rarity	diversity	Context	Significant
Young gorse/pasture	No	No	No	No	No
Ridgeline Exotic Treeland	No	No ¹	No	No	No
Treefern gully	No	No ²	No	No	No
Early seral broadleaf forest	No	No	No	Yes ³	Yes
Middle seral broadleaf forest	Yes	No ⁴	No	No	Yes
Late seral broadleaf forest	Yes	No	No	No	Yes
Manuka mixed broadleaf forest	Yes	Yes	No	No	Yes
Wetland	Yes	Yes	No	No	Yes

We feel that considering this area as part of the "larger corridor of vegetation that also forms the Key Native Ecosystems (KNE) Belmont-Dry Creek" is a way of putting the values and importance of the whole (the KNE) upon a smaller subset, which does not share yet those values and importances of the wider feature. This approach conflates the importance of the site in the KNE. Until the area reaches the potential it has, we do not consider that the values currently absent should be reflected on as though they are and so make the area significant by association.

Effects

Sediment release

The reviewers feedback, and concerns are noted. In discussion of potential sediment effects, the reviewer recommends that the ecological reports recommendations be incorporated, in detail, into the next version of the erosion and sediment control assessment report. The ecological concerns and requirements were raised with, and did guide, the hydrology and ESCP authors consideration with respect to management of potential effects and we understand that there will be greater reflection on these matters in the updated version of those reports.

¹ Noting the record of a north island robin does not cause the area to register as housing a rare taxa as that taxa is throughout in low abundance.

² Accepting the presence of three swamp maire and 5 Ramarama which alone are insufficient to trigger rarity in this habitat as a whole.

³ Our assessment is that the early seral communities are a connective matrix between and around the later seral communities and do have a buffer role to those older more developed vegetation communities, including the gully wetland.

⁴ The south western most gully head is seral vegetation but has a swamp maire and 2 Ramarama which alone are not enough to make the habitat type significant based on rarity.

Hydrology

The reviewer feels that the issue of hydrological change be a separate section and discussed in more detail. We appreciate that request but suggest that the assessment sits reliant on the hydrological assessment by Mr McConchie and following his assessment the issues that are potentially evident -a change in flow, surface and subsurface, to each sub catchment and so the streams and lower wetlands has very little potential to change and so the potential adverse effect is theoretical only.

In essence water will still flow as it does and through careful design of surfaces in the same proportion but because the effect is so high in the catchment and in such small areas, the potential for substantive change is very limited. Thus, the ecological report did not go into substantive potential effects of changing water deliver because the magnitude of those impacts was assessed as small even if incorrectly designed, but also even with poor design and the result potential change to the wetlands (and stream ephemeral - Intermittency patterns) would result in only a small chance of minor change (the kiokio / sedge dominated wetlands would persist on less water) and minor alteration of the instream values. In short the assessment is reliant on the hydrological assessment and that the affected systems are very robust.

The reviewer notes the need for and the absence of a hydrological monitoring plan referencing specifically the central western swamp maire gully. The issue for the swamp maire relates mostly to sediment discharge and less so to the potential for reduced hydrology which the hydrologists states is highly unlikely. We think ecologically that the important aspect is the monitoring of deposited sediment change. We had some discussion with Iwi representatives on this matter on site. Ecologically we see some simple staff gauges placed into the current sediments to record accumulation of deposition and some form of sediment moisture content measure - drying is more critical than minor increase in water - primarily from a seedling establishment process rather than health of the mature trees.

Level of effect

The reviewer has an unusual comment here – “..... has followed the EIANZ (2018) guidelines in assigning values but has **not** used this guide to assign overall level of effects and overall magnitude of effects. It's not clear why this guidance has not been followed.”

We are uncertain why this comment has been made. Table 17 (section 11.2) makes it clear that we consider the value and the magnitude of the effect to determine the level of effect (exactly as suggested by EIANZ 2018). The sections above that table show how we came to the magnitude of effect levels – section 11.1.1 (Table 16).

For freshwater streams section 11.2.1 lays out the magnitude of change and sets this against the value present to get the level of effect.

This is the EIANZ (2018) process.

The reviewer notes that the report does not come to a conclusion about the overall magnitude of effects, concluding instead the effects of each community and particular effects issues (noise etc). We do not consider that there is an accumulative or averaged effect to make for the site as a whole. It is agreed that the ecological assessment does correctly identify that offsetting is required to address:

1. the time lag between site clearance and the re-establishment of terrestrial vegetation and headwater stream function within the OBDA; and
2. the permanent loss of approximately 0.07 ha of wetland, which cannot be directly recreated within the development footprint.

We will add a table showing each effect outcome for terrestrial vegetation communities, wetlands, freshwater streams, fauna, sediments, hydrology, noise.

Effects management

We accept the reviewers note that management plans and the offset plan as at least drafts will be required. We will suggest that the approach will be one site ecological management plan and not numerous ecology plans. The reviewer offers her opinion as to the additions or other aspects to consider in the offset plan development for which we thank the reviewer. These plans are in process of being drafted and we will seek further GWRC input.

Her review is that *"as a minimum, the final application submitted to the EPA should include a clear description of the proposed offset design, how it will be implemented, how it will satisfy the effects management hierarchy, including demonstrating that the offset is additional to existing or planned restoration by Regional Parks."* We hear that and are seeking to ensure that plan is sufficiently developed.

Further we note that the project team will work with the councils to develop a suite of conditions to enable the delivery of the offset and mitigation package

Overall it appears that the reviewer is accepting of the ecological report and its conclusions as to the values and effects potentially present and their management such that the outcomes after avoidance, minimization, remedy and offset there will be in the round a neutral if not positive net ecological outcome.

Monitoring and Management Plans

We (and the reviewer) see the need for:

- Lizard Management Plan (herpetologist),
- Sediment monitoring plan generally and for swamp maire (ESCP expert),
- Offset terrestrial and wetland habitat creation plan to ensure the successful offset is achieved, must include: stream enhancement, wetlands, terrestrial vegetation, fauna improvements (pest control).
- We are odds with the Reviewer in that we do not see the need for a hydrological plan, especially where there is a separate ESCP plan than will confirm hydrological discharge to each sub catchment.

On site

- remedial Restoration plan of each stage (revegetation, pest management, monitoring success).
- Stream Re-creation Methodology Plan (measure of success),

The reviewer notes the other recommendations within the Ecological Assessment:

- Pre-clearance checks for nesting birds,
- Ramarama and swamp maire translocations,
- swamp maire propagation and cutting new plant development and revegetation of areas with swam maire (including protocols at the nursery for myrtle rust).

We see **three plans**, one site OBDA clearance management (faunal and species management), an on site restoration plan (streams and terrestrial habitat) and the ecological offset plan.

The reviewer concludes, positively:

- The ecological assessment provides a solid baseline for assessing the values and the effects,
- Provides appropriate effects management responses,
- Provides a robust approach to offsetting the residual effects.
- However, further detail (drafts) are required with respect to the management / offset plans which are appropriate effects management responses.



Yours Sincerely

Dr Vaughan Keesing

BlueGreen Ecology.

11.06.2026

Subject: Belmont Quarry Fast Track Application – Review of Ecological Assessment.

Attention: Jessica Glover, Resource Advisor (Environmental Regulation) Greater Wellington Regional Council

From: Melanie Dixon, Principal Ecologist

Date: 19 May 2026

1 Introduction

Thank you for the opportunity to review the draft ecological assessment for the fast-track application for the extension of the Belmont Quarry. This review is provided *without prejudice* and covers terrestrial, wetland and stream ecology. I hope that it will be of use to the applicant's team as they finalise their application. We are happy to discuss any of the matters we have raised.

For clarity the document reviewed was:

BlueGreen (2025). *Belmont Quarry OBDA Development: Ecological Values, Effects and their Management*. Report prepared by BlueGreen Ecology Ltd for Winstone Aggregate Ltd. Revision 5 (final draft) dated 6 May 2026.

I have also undertaken two site visits:

- 25 February 2026 – joint ecology and hydrology walkover of the OBDA (Overburden Disposal Area).
- 8 April 2026 – joint ecology and parks specialists visit to Belmont Park to view areas considered for offsetting (terrestrial and wetland).

I also discussed hydrology matters with Brydon Hughes on 18 May 2026, and freshwater (stream) matters with Collaborations Director and Aquatic Ecologist, Dr. Gareth Taylor who has also reviewed this memo.

2 Summary of application

Winstone Aggregates, who operate Belmont Quarry are seeking consent to use an approximately 23.86 ha area located to the north of the existing quarry pit on Belmont Regional Park to dispose quarry overburden, referred to in reports and plans as the Overburden Disposal Areas (OBDA). A land exchange is being progressed separately. The use of the area for overburden is proposed to occur over 8 stages with each stage requiring the removal of all vegetation and topsoil.

3 Review

3.1 Description context and site

The survey effort (flora, fauna, wetland and streams) is good, and the detailed descriptions provided throughout the report align with my site observations. Terrestrial vegetation is described and mapped in detail. All wetlands have been identified and delineated (there is one wetland under the OBDA area, and three wetlands immediately outside the OBDA). There are six streams present; although distinguishing between ephemeral and intermittent channels is not always straightforward, the stream classification appears reasonable, although noting the boundary between intermittent and ephemeral is further upstream than has been identified in for the north-western stream (as discussed on pg 46).

Figure 1 shows the catchments with notation is to where the streams drain to, and Figure 2 shows the location of the SEVs.

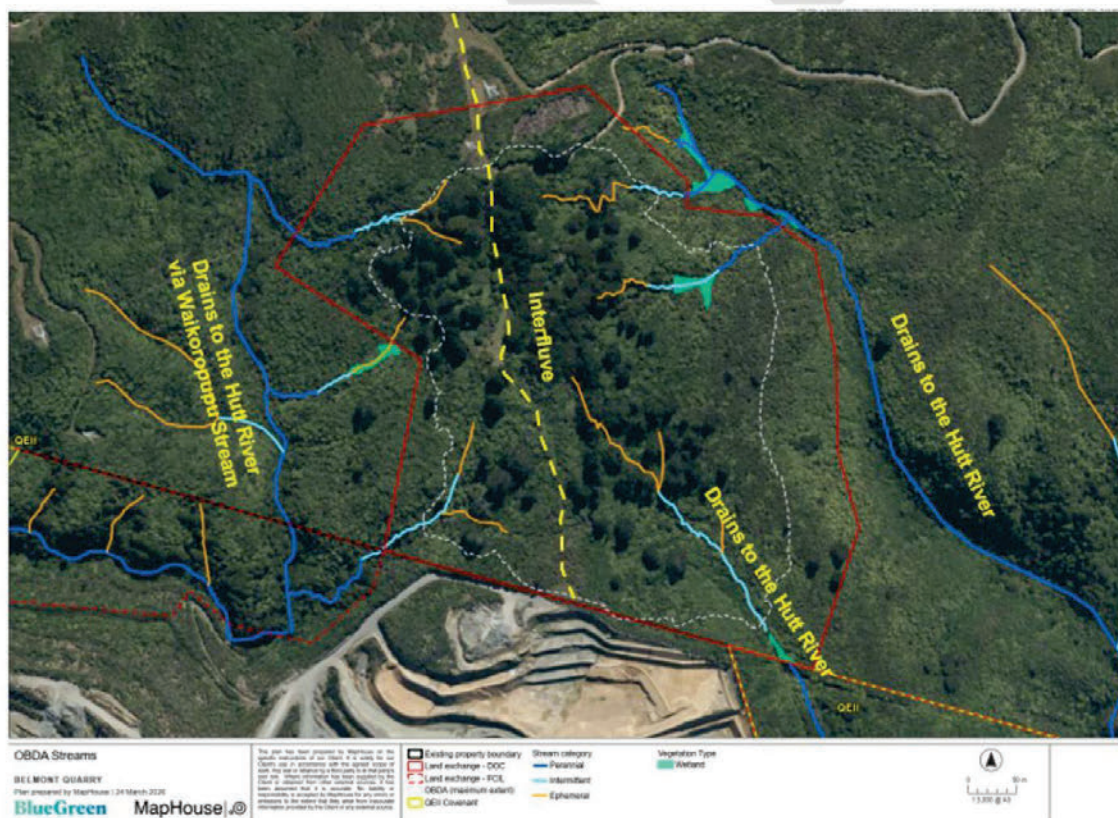


Figure 1: Figure 2.1 from the hydrological assessment, showing the catchment drainage patterns

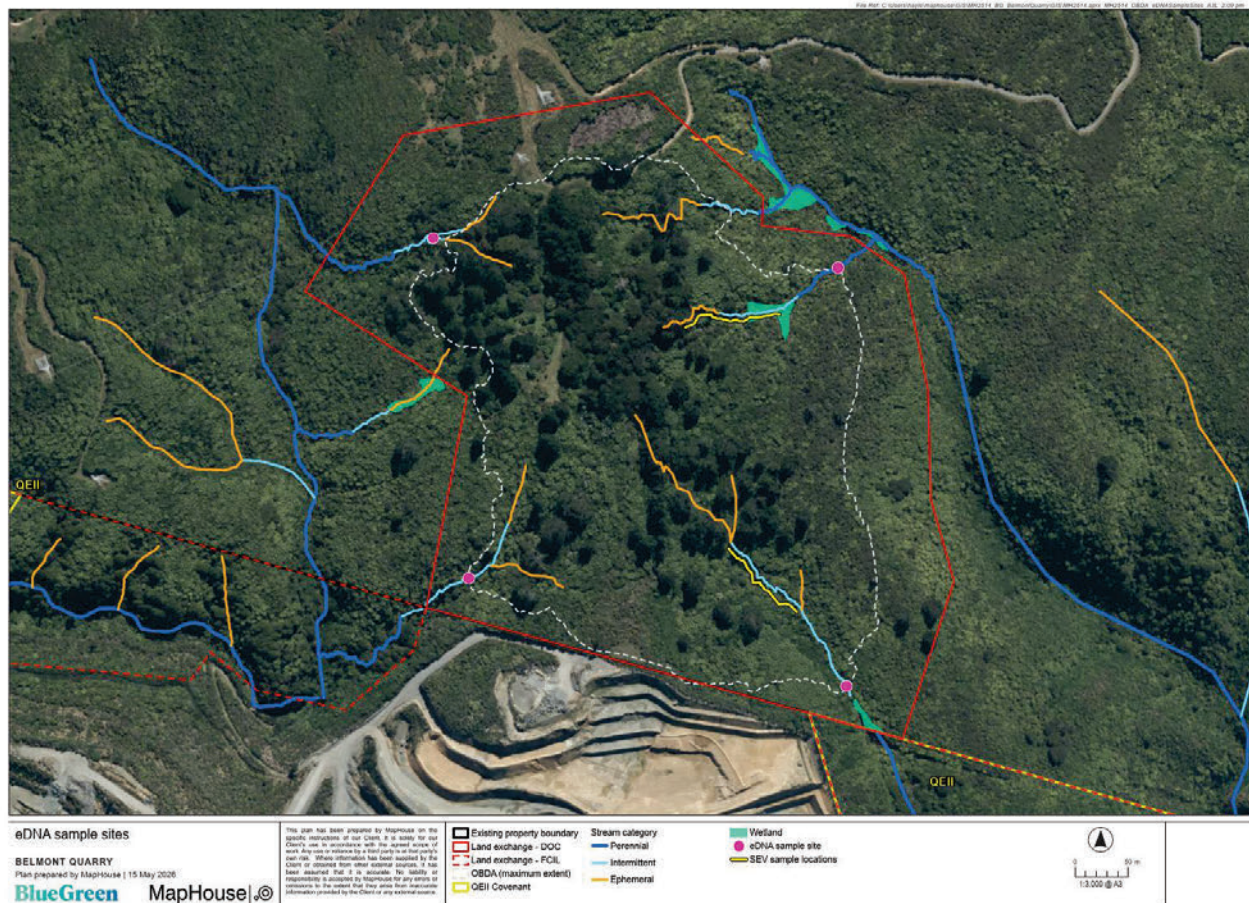


Figure 2: The location of the SEVs shown in yellow (supplied separately by V.Keesing, 15 May 2026)

The following information should be added to the report as appendices:

- Plot data, plot locations, and species list
- SEV full tables.
- eDNA data

It should also be noted that using eDNA, may result in different SEV outcomes due to higher taxon detection rates¹.

3.2 Assigning value and significance

A values assessment has been made following EIANZ 2018 guidance². This assigns the terrestrial value of the OBDA as “moderate”. This is the correct application of the guidance, however in Section 8.5 the report author does ‘talk down’ the threat status of the OBDA. The OBDA is located in an

¹ Ministry for the Environment. (2025). Environmental DNA indicators for supporting implementation of the National Objectives Framework (NOF) in the NPS-FM (CR 665).
<https://environment.govt.nz/publications/environmental-dna-indicators-for-supporting-implementation-of-the-national-objectives-framework-nof-in-the-nps-fm/>

² Roper-Lindsay, J., Fuller, S. A., Hooson, S., Sanders, M. D., & Ussher, G. T. (2018). Ecological impact assessment (EclA). EIANZ guidelines for use in New Zealand: Terrestrial and freshwater ecosystems (2nd ed.). Environment Institute of Australia and New Zealand.

Acutely Threatened LENZ environment and Threatened and At Risk plants are widespread throughout the OBDA (see Figure 15³). In addition, at least 8 Threatened or At Risk animals are present or close by⁴.

I also consider the entire OBDA area to be significant. While there are patches of non-native vegetation, I would not exclude them from the larger corridor of vegetation that also forms the Key Native Ecosystems (KNE)⁵ Belmont-Dry Creek.

3.3 Description of potential adverse effects

3.3.1 Consideration of downstream sediment impacts

There are three wetlands downstream of the OBDA area, the most significant of which contains eight⁶ healthy swamp maire trees. The Ecological Assessment includes a detailed discussion of the potential impacts of sediment discharge (Section 11.3), and I support the recommendations in this section regarding additional monitoring and management to ensure that swamp maire, in particular, are protected from sediment impacts.

These recommendations need to be incorporated, in detail, into the next version of the erosion and sediment control assessment report, otherwise they risk not being implemented (should the application be granted).

3.3.2 Consideration of downstream hydrological impacts

Whilst identifying it as an issue, the ecological assessment does not discuss in any detail the potential effects of temporary or permanent changes to downstream receiving environments, particularly wetlands which will be the most sensitive to any changes. Like sediment, the issue is significant enough to warrant a separate section in the report.

I support the recommendation later in the document (p. 72) that a hydrological monitoring plan be prepared, but note that there is not any information about monitoring in the accompanying hydrological report. The swamp maire wetland is the most sensitive downstream environment, given the threatened status of this obligate wetland species. Established swamp maire trees are likely to respond poorly to an increase, as well as a decrease, in water levels⁷.

³ Figure 15 shows the known locations of swamp maire (Threatened - Nationally Vulnerable), ramarama (Threatened - Nationally Critical) and *Coprosma rubra* (At Risk – Declining) and *Carex maorica* (not threatened or vulnerable, but regionally uncommon).

⁴ Table 7 shows seven Threatened or At Risk birds are present in the OBDA or in the surrounding area. The At Risk – Declining lizard (ngahere gecko) was also found in surveys close to the OBDA.

⁵ See <https://www.gw.govt.nz/environment/our-natural-environment/our-unique-ecosystem-types/key-native-ecosystem-programme/>

⁶ As recorded in iNaturalist

⁷ I could not find any published quantitative data on swamp maire's eco-hydrology, but anecdotally established tree deaths have been attributed to a permanent increase in water levels.

3.4 Description of the level of effects and overall magnitude of effects

The report has followed the EIANZ (2018) guidelines in assigning values but has not used this guide to assign overall level of effects and overall magnitude of effects. It's not clear why this guidance has not been followed.

3.5 Proposed management of adverse effects

The proposed management of effects is outlined in Section 11 and includes a detailed consideration of how adverse impacts will be managed both during and after clearance at the OBDA itself (e.g. sediment effects, particularly in relation to swamp maire). I generally support these recommendations. The key issue is demonstrating how these measures will be implemented in practice (refer to next section).

3.6 Proposed offsetting / compensation

Although not coming to a conclusion about the overall magnitude of effects, the ecological assessment does correctly identify that offsetting is required to address:

1. the time lag between site clearance and the re-establishment of terrestrial vegetation and headwater stream function within the OBDA; and
2. the permanent loss of approximately 0.07 ha of wetland, which cannot be directly recreated within the development footprint.

Preliminary calculations of the required offset quantum have been provided, and a potential area for offset works for bush planting (the Heffernan Block in adjacent Belmont Park) has been identified. I understand that further details of the proposed offsetting will be included in an updated version of the report. To assist with its development, I provide the comments for consideration in Table 1 below.

I recommend that, as a minimum, the final application submitted to the EPA should include a clear description of the proposed offset design, how it will be implemented, how it will satisfy the effects management hierarchy, including demonstrating that the offset is additional to existing or planned restoration by Regional Parks.

Table 1: Items to consider for offset design

Type	Points to consider
Bush	- ensuring outcomes are additional to passive restoration that is occurring through gorse e.g. using podocarps in planting mixes, as podocarp trees often do not naturally regenerate through gorse. - including pest control for rats to improve natural regeneration from adjacent seed sources (rats predate seeds). - monitoring to ensure planting success.
Streams	- use of the Stream Ecological Valuation (SEV) for confirmation of ecological compensation and monitoring outcomes. - removing and/or improving stream crossings.
Wetlands	- confirm if there are any suitable sites for offsetting the loss of wetland extent at Belmont Regional Park (i.e. any drained areas of wetland that can be rewet)

3.7 Monitoring and Management Plans

The Ecological Assessment mentions several plans, such as:

- Plans to minimise the impacts of the clearance of the OBDA
 - Lizard Management Plan
- Plans to monitor (and manage if necessary) the downstream impacts of OBDA:
 - Sediment monitoring plan for swamp maire (pg 53 and page 54)
 - Hydrological monitoring plan to ensure no downstream impacts (pg 72) on downstream gully systems (and associated wetlands and streams).
- Plans to ensure the successful restoration of the OBDA area:
 - Restoration plan (pg 58 mentions the basis of this plan has been prepared with Boffa Miskell).
 - Stream Re-creation Methodology Plan (pg 72)
- Plans for offsite restoration works as part of the offsetting programme:
 - Restoration plan for offset areas in Belmont (pg 72)
 - An enhancement plan for existing streams in poor condition in the Regional Park (pg. 73).

Other recommendations within the Ecological Assessment that could usefully be included in management plans include:

- Pre-clearance checks for nesting birds
- Threatened flora management e.g. threatened plant survey, monitoring of salvaged/translocated plants and any planted seedlings, planting rehabilitation success tracking (survival, canopy cover, regeneration, succession, weed and pest presence)
- Swamp maire propagation plan (including protocols at the nursery for myrtle rust).
- Wetland offsetting

If the application is approved, it is these plans that will do the 'heavy lifting' ensuring that the recommendations of the ecological assessment are implemented. This includes ensuring:

- the adverse effects of works in the OBDA area are minimised as far as possible (including downstream wetlands);
- no downstream impact from sediment or hydrological changes;
- the staged rehabilitation (e.g. replanting) of the OBDA is successful; and
- restoration works on Belmont Regional Park offset the residual ecological effects of the proposal.

These management plans should be provided as drafts for review to give greater certainty to the outcomes being achievable, rather than left as conditions of consent⁸. As a minimum, a detailed description of management/monitoring plans, their purpose and an outline of their contents should be provided. Given the works will be staged over many years these should be living documents that can be updated as required.

⁸ It would likely make sense to consolidate the number of plans, and in some cases the detail may sit in other plans, e.g. the sediment control plan, and be cross referenced in any ecology management plan.

4 Conclusion

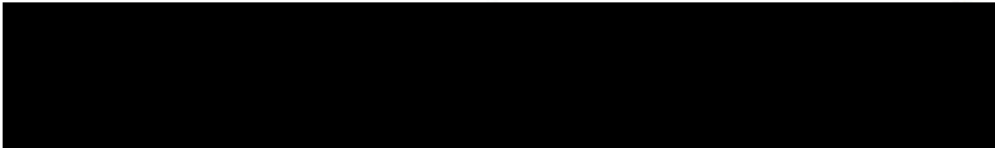
The ecological assessment provides a solid baseline for assessing the effects of the proposal and developing a robust approach to offsetting the residual effects. However, further detail is required in the assessment of effects and effect management.

The proposed mitigation measures are broadly supported but must be clearly embedded within the hydrology and sediment reports. Draft management plans should be provided for review prior to lodging the application as this is where the detail on how downstream wetlands and streams (including threatened swamp maire trees) will be protected.

A well-defined and robust offsetting strategy will also be required to address residual effects. This information is not provided in the current draft.

Prepared by:
Melanie Dixon

Reviewed by:
Dr Gareth Taylor



Principal Ecologist

Director and Ecologist, CEnvP



Memo

17th June 2026

To: Jessica Glover

From: Megan Dredge – Environmental Consultant

Subject: Belmont Quarry Fast Track – Erosion and Sediment Control - Response to Specialist Review

Greater Wellington Regional Council (GWRC) has provided a memorandum prepared by Gregor McLean (Southern Skies Environmental Limited) outlining technical comments on the Erosion and Sediment Control Assessment Report (ESCAR). A meeting was held on 9 June 2026 between GWRC, MPD Environmental, Southern Skies and Winstone representatives to discuss these matters in detail. The following sections provide a consolidated response to each point raised and outline how these matters have been, or will be, addressed within the ESCAR.

Comments Addressed

1. The general ESC approach is supported however will need further refinement for construction.

Noted. A Site Specific Erosion and Sediment Control Plan (SSESCP) for each stage (or Sub-stage) will be developed which has greater refinement on ESC matters for construction.

2. The ESCP (Stage 1) states that the initial access track to the toe of the slope will be constructed as cut and cover. The extent of earthworks is not shown on the plans and based on the sites topography the practicality of achieving cut and cover will be challenging. Furthermore, the track is to be used to haul material and therefore the ability to maintain it in a stabilised manner is questionable. The track will also need to include drainage controls, and that issue has not been addressed in the ESCP. I note that the ESCAR states that runoff from haul roads will be managed by discharge to SRP's and stabilisation, although the ESCP's only address stabilisation.

At this stage, the drawings represent indicative track locations only and the exact formation is likely to change. The final earthworks design has not yet been confirmed for the Stage 1 access track. The detailed earthworks extent, volumes, and construction methodology will be confirmed through the SSESCP prior to works commencing. Cut and cover requirements will be thoroughly addressed in the SSESCP, as well as processes for track maintenance and the potential for additional controls (likely to be silt fences) should the need arise in certain locations on the track.

To address drainage and stability requirements, the temporary track will include an upslope stormwater drain lined with geotextile and/or aggregate, directing runoff to geotextile lined pits or sumps with stabilised discharge points. Sumps will be spaced at approximately 50-metre intervals where practicable, with temporary stormwater pipes installed as required to convey water from upslope to downslope. All small cut areas will be stabilised

immediately, and the final drainage layout and stabilisation approach will be detailed in the SSESCP once the design is finalised.

3. It is unclear from the ESCAR if it is envisaged that vegetation clearance would only be undertaken prior to each stage (or part stage) of the OBDA development. I note that progressive clearance is mentioned in the ESCAR, however that will need confirmation.

Vegetation clearance will be undertaken prior to each part stage (i.e. only for the area that is planned to be worked for the next 6 – 12 months). This is consistent to the recommendations in the ecological report and is based on the typical earthworks season.

4. During the site visit the types of controls that may be used during vegetation clearance was discussed. As the author was not part of that site visit it does not appear that this concern has been addressed. Vegetation clearance will result in sediment discharges if not appropriately managed. The ESCAR should provide detail on this matter.

Selective vegetation clearance will occur for the immediate controls that need to be in place prior to earthworks. For example, clearance of the initial access tracks and area for a SRP or DEB or SSF. After the controls are installed, the remaining vegetation can be cleared. Where there are steep incised gullies hand clearance will occur rather than mechanical clearance.

The vegetation will be mulched on site using an excavator and chipper or mulch head. This will greatly reduce potential sediment runoff during this activity. Larger logs can be stockpiles on site.

5. It is unclear if the ESC will provide treatment for the subsoil drainage (overburden fill and fines containment) post installation. That matter will need to be addressed in the ESCAR/ESCP.

Subsoil drainage will be perforated novacoil pipes, wrapped in geotextile and aggregate. It is likely that there will be some sediment release from the subsoils during the first few weeks of operation, after which they should run clean. During these first few weeks, the subsoils can be monitored and the discharge contained and treated in sediment bags on site. During the operational phase the subsoils can also be monitored to ensure no sediment discharge is occurring (>170 NTU).

6. In areas where Super Silt Fences are relied upon, the construction methodology is likely to be critical to ensure that these devices are not overwhelmed. As an example, it would be good to understand why DEB-1A could not be established during Stage 1A works, rather than a SSF to provide a more robust sediment control device.

The establishment of DEB-1A requires completion of a few Geotech requirements before the device can be constructed. Undercutting and installation of subsoil drainage are required at the DEB footprint and these works must occur prior to placing any structural fill. Once this preparation is complete, the area can be backfilled with engineered material and the DEB cut in.

Because these enabling works cannot occur until some initial earthworks are undertaken, a Super Silt Fence is proposed as an interim control to manage sediment during the early

Stage 1A activities. In all cases, the installation of DEBs and SRPs has been prioritised, with SSFs only used where a small amount of earthworks is necessary to enable construction of the primary treatment device or where there is no opportunity to install a sediment pond due to space or topography.

7. Cleanwater diversions are proposed to be constructed above the extent of works (per Stage), a typical detail has been provided as an appendix. It is noted that extensive earthworks will be required to construct these based on the topography of the site.

The cleanwater diversions on the drawings are indicative of where they may end up in the final sub-stage. In reality, the diversions will be constructed as the fill rises and be on top of the fill itself. It is likely the diversions will need to be constructed many times over the course of the stage. They will not necessarily follow the contours of the site, but attention will need to be made to their position as works progress to ensure there is sufficient fall for water discharge.

8. Progressive stabilisation will be critical to ensure that sediment related effects (including dust) are minimised. The ESCAR states that rehabilitation of the outer faces will be carried out progressively and commence once final heights are reached in each stage. Stabilisation should be carried out progressively and should not necessarily wait until final heights have been reached.

Progressive stabilisation is built into the staging methodology, with exposed areas stabilised as soon as they become practically available rather than waiting for final lift heights. The ESCP drawings identify the portions of each sub-stage that can be closed out early, ensuring that stabilisation occurs progressively across advancing faces while active working areas remain open.

Where final profiles are not reached before the end of an earthworks season, temporary stabilisation will be applied to ensure all exposed surfaces are protected over winter (in areas not covered by a winter works application).

9. The ESCAR includes stabilisation techniques that not strictly in accordance with the ESC Guidelines. Polymer and hydro mulching are not considered instant stabilisation.

This is recognised. All ESC's remain in place until 80% stabilisation is achieved.

10. In relation to stabilisation and controlling dust emissions both the ESCAR and Air Quality Assessment state that one of the methods is "Mitigation set out in the quarry dust management plan such as overburden grassing, hydroseeding, or stabilising will be done as soon as practicable on completion of a fill area". I have not reviewed the Quarry Dust Management Plan however this comment reinforces the need to progressively and rapidly stabilise the OBDA.

Noted. Progressive stabilisation and rehabilitation is planned for the site. See previous comment.

11. The ESCAR mentions works in a watercourse and at 11.2 refers to staged stream diversions. It is acknowledged that the OBDA reclaims the headwaters of streams, however I am unaware of any other direct streamworks or impacts.

No other stream diversions or streamworks are proposed. This will be addressed in the ESCAR.

12. I note that there are different dates in the ESCAR relating to winter works. This should be clarified.

Noted. This will be addressed in the ESCAR.

13. Downstream of the site there are some sensitive receiving environments identified in the Ecological Values report. Although the ESCAR mentions additional secondary controls where swamp maire is present, it is not clear what secondary controls are provided for. It is also considered that the recommendations of the Ecological report should be considered and incorporated where relevant into the ESCAR.

Secondary controls include the use of informal forebays on DEBs to slow inflows and promote initial settling, retention of silt fences installed around DEBs located within sensitive gullies to provide an added barrier to sediment movement, and lined sediment sumps at DEB outlets to capture residual fines before discharge.

The fill material brought into the gullies where swamp maire is present downstream will also be of higher quality – for Geotech requirements but also because it is less prone to erosion.

The recommendations of the Ecological Report will be addressed and incorporated in the ESCAR.

14. In terms of sediment related effects, although this site and its potential sediment related effects are minor in the Hutt River catchment context, the site and its potential sediment related effects on the immediate receiving environments (wetlands and streams) is not considered minor and the direct impact of sediment has not been assessed on these environments.

It is understood that even if the overall sediment contribution is small into the Hutt River as the final receiving environment, the nearby wetlands and ephemeral streams could still be affected. However, if controls are built, maintained and designed as per best practise standards, they are expected to achieve 80 – 90% efficiency (SRPs that are chemically treated). This in itself should make the effects no more than minor.

Many of the contributing catchments immediately outside of the OBDA are too small and too irregular for a meaningful USLE assessment to be completed. As a result, the model would not provide a realistic indication of sediment generation. Instead, the assessment has focused on the ecological sensitivity of the immediate receiving environments, including the wetlands, intermittent streams and swamp maire. Given the performance of the proposed controls and the conservative design approach, the potential sediment related effects on the immediate receiving environments are considered to be low.

15. The water quality monitoring has two different rainfall triggers, these need to be consistent.

Noted, this will be checked in the ESCAR.

16. The monitoring is suggesting an 80% reduction in NTU, whereas the standard conditions include a trigger of 170NTU. I note that the 80% reduction is not reflected in the sediment yield assessment undertaken or considered as part of the effects assessment.

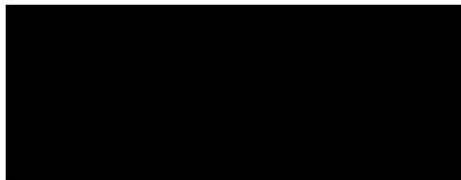
As discussed, this will be changed back to reflect the original GWRC condition set to 170 NTU.

17. The proposed audits of the site and subsequent reporting (both water quality and routine audits) to GWRC is quarterly, whereas I consider that the reporting should be provided to GWRC within 5 days of the sampling.

Noted, this has been modified.

18. I note that the conditions require further refinement to ensure that information is provided prior to works commencing, refer Condition 17 which requires a CTMP prior to capping of the OBDA, whereas the CTMP is required prior to the commencement of earthworks. I assume that this is an error as there are other conditions that relate to the capping that would normally be required prior to earthworks commencing.

Noted, this has been modified.



Megan Dredge
MPD Environmental Limited



Memo

31st May 2026

To: Jessica Glover

From: Gregor McLean– Environmental Consultant

Subject: Belmont Quarry Fast Track – Erosion and Sediment Control

Nature of Review

Greater Wellington Regional Council (GWRC) have engaged SouthernSkies Environmental Limited to undertake a review of the Winstone Aggregates Limited Belmont Quarry Overburden Disposal Area (application).

I have reviewed the following:

Dated May 2026 *“Erosion and Sediment Control Assessment Report”*, prepared by MPD Environmental Limited.

Dated March 2026 *“Belmont Quarry Limited Air Quality Assessment”*, prepared by PDP Limited.

Although not in my area of expertise, I have also read the following reports as they relate to construction and the receiving environments.

Dated 6 May 2026 *“Belmont Quarry OBDA Development, Ecological Values, Effects and their Management”*, prepared by Blue Green Ecology Limited.

Dated 5 May 2026 *“Geotechnical Assessment Report, Belmont Quarry Proposed Overburden Disposal Area”*, prepared by Baseline Geotechnical Limited.

I undertook a site visit with GWRC staff and the applicant on the 9th February 2026.

Summary of Key Matters Relevant to Review

The OBDA area covers an area of approximately 23.86ha in area and will accommodate 2.8M3 of material over a period of 35 years.

The OBDA site is described in the Erosion and Sediment Control Assessment Report (ESCAR) as “The proposed OBDA site is immediately north of the current operational area. It is characterised by moderate to steep terrain, with surface flow paths following natural contours into ephemeral watercourses. Vegetation cover includes mānuka and kānuka scrub, pastoral grasses, gorse, and regenerating native species” “Ecological assessments confirm the presence of indigenous flora and fauna within the wider park, including lizard habitat and native bird species such as tūī, korimako, and riroriro. The OBDA footprint avoids the most sensitive habitats. Targeted relocation of native lizards will occur prior to any vegetation clearance. Hydrologically, the site is located within the Te Awa Kairangi/Hutt River catchment”.

Construction of the proposed OBDA will be undertaken in 10 stages over a 35-year operational period. The staging for the establishment and operation of the OBDA is described in the ESCAR. Erosion and Sediment Control Plans (ESCP) have been prepared for Stage 1 as a ‘proof of concept’. The ESCAR states that the ESC is in accordance with GWRC ESC Guidelines.

The initial stage of work for Stage 1 includes establishing the main haul road approximately 20m wide along the central ridge of the OBDA, creating access tracks to the toe of the slope (as cut and cover) to allow for commencement of foundation preparation, drainage and establishment of and installing temporary erosion and sediment controls to prepare the area for bulk fill placement.

Approximately 5.3 ha of vegetation is progressively cleared within the working footprint, and topsoil is stripped and stored in a static stockpile area of approximately 0.6ha for later rehabilitation (Figure 5).

Chemical treatment is proposed to be implemented on the DEB's and SRP's subject to bench testing and the provision of a Chemical Treatment Management Plan that is proposed to be submitted 20 working days prior to the capping of the OBDA (Proposed Condition 17).

The ESCAR provides details of the monitoring that will be undertaken during the works. This is summarised as follows (Proposed Conditions 6 – 10).

- Quarterly ESC audits
- Rainfall triggered monitoring (25mm/24 hours) – NTU, TSS and pH.
- Monthly dry weather monitoring - NTU, TSS and pH.

Monitoring to be undertaken at inflow and outflows of SRP's and DEB's and instream (upstream and downstream). The monitoring data collected will be provided to GWRC within 10 working days of the close of the quarterly period.

The monitoring is to demonstrate that the TSS at the downstream monitoring point is no greater than 30% upstream testing point, the DEB's/ SRP operate to provide a 80% reduction or 100mm clarity at the outlet and a pH range of 5.5-8.5.

The ESCAR has assessed the effects of sediment by comparing the Hutt River catchment area and suspended sediment loads¹ to the OBDA catchment area and sediment yield using the Universal Soil Loss Equation (USLE).

Simply, the assessment shows that the potential area of earthworks and yield from the OBDA in comparison to the Hutt River catchment and suspended sediment loads is minor. The ESCAR notes however that assessing sediment yield for a project of this scale inevitably involves uncertainty and relies on multiple assumptions.

The ESCAR discusses methods to minimise dust from the OBDA, such as:

- A water cart used to dampen haul roads and overburden disposal areas in dry conditions;
- Trucks will follow site speed control rules and stay on haul roads when possible;
- Minimising duration of stripping operations; and
- Mitigation set out in the quarry dust management plan such as overburden grassing, hydroseeding, or stabilising will be done as soon as practicable on completion of a fill area.

This approach mirrors the Air Quality Assessment.

¹ From NIWA (NZ River Maps)

Comments

The general ESC approach is supported however will need further refinement for construction.

The ESCP (Stage 1) states that the initial access track to the toe of the slope will be constructed as cut and cover. The extent of earthworks is not shown on the plans and based on the sites topography the practicality of achieving cut and cover will be challenging. Furthermore, the track is to be used to haul material and therefore the ability to maintain it in a stabilised manner is questionable. The track will also need to include drainage controls, and that issue has not been addressed in the ESCP. I note that the ESCAR states that runoff from haul roads will be managed by discharge to SRP's and stabilisation, although the ESCP's only address stabilisation.

It is unclear from the ESCAR if it is envisaged that vegetation clearance would only be undertaken prior to each stage (or part stage) of the OBDA development. I note that progressive clearance is mentioned in the ESCAR, however that will need confirmation.

During the site visit the types of controls that may be used during vegetation clearance was discussed. As the author was not part of that site visit it does not appear that this concern has been addressed. Vegetation clearance will result in sediment discharges if not appropriately managed. The ESCAR should provide detail on this matter.

It is unclear if the ESC will provide treatment for the subsoil drainage (overburden fill and fines containment) post installation. That matter will need to be addressed in the ESCAR/ESCP.

In areas where Super Silt Fences are relied upon, the construction methodology is likely to be critical to ensure that these devices are not overwhelmed. As an example, it would be good to understand why DEB-1A could not be established during Stage 1A works, rather than a SSF to provide a more robust sediment control device.

Cleanwater diversions are proposed to be constructed above the extent of works (per Stage), a typical detail has been provided as an appendix. It is noted that extensive earthworks will be required to construct these based on the topography of the site.

Progressive stabilisation will be critical to ensure that sediment related effects (including dust) are minimised. The ESCAR states that rehabilitation of the outer faces will be carried out progressively and commence once final heights are reached in each stage. Stabilisation

should be carried out progressively and should not necessarily wait until final heights have been reached.

The ESCAR includes stabilisation techniques that not strictly in accordance with the ESC Guidelines. Polymer and hydro mulching are not considered instant stabilisation.

In relation to stabilisation and controlling dust emissions both the ESCAR and Air Quality Assessment state that one of the methods is *"Mitigation set out in the quarry dust management plan such as overburden grassing, hydroseeding, or stabilising will be done as soon as practicable on completion of a fill area"*. I have not reviewed the Quarry Dust Management Plan however this comment reinforces the need to progressively and rapidly stabilise the OBDA.

The ESCAR mentions works in a watercourse and at 11.2 refers to staged stream diversions. It is acknowledged that the OBDA reclaims the headwaters of streams, however I am unaware of any other direct streamworks or impacts.

I note that there are different dates in the ESCAR relating to winter works. This should be clarified.

Downstream of the site there are some sensitive receiving environments identified in the Ecological Values report. Although the ESCAR mentions additional secondary controls where swamp maire is present, it is not clear what secondary controls are provided for. It is also considered that the recommendations of the Ecological report should be considered and incorporated where relevant into the ESCAR.

In terms of sediment related effects, although this site and its potential sediment related effects are minor in the Hutt River catchment context, the site and its potential sediment related effects on the immediate receiving environments (wetlands and streams) is not considered minor and the direct impact of sediment has not been assessed on these environments.

Conditions

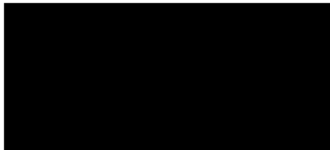
The applicant should be provided with the GWRC condition set to ensure there is alignment.

The water quality monitoring has two different rainfall triggers, these need to be consistent.

The monitoring is suggesting an 80% reduction in NTU, whereas the standard conditions include a trigger of 170NTU. I note that the 80% reduction is not reflected in the sediment yield assessment undertaken or considered as part of the effects assessment.

The proposed audits of the site and subsequent reporting (both water quality and routine audits) to GWRC is quarterly, whereas I consider that the reporting should be provided to GWRC within 5 days of the sampling.

I note that the conditions require further refinement to ensure that information is provided prior to works commencing, refer Condition 17 which requires a CTMP prior to capping of the OBDA, whereas the CTMP is required prior to the commencement of earthworks. I assume that this is an error as there are other conditions that relate to the capping that would normally be required prior to earthworks commencing.



Gregor McLean

SouthernSkies Environmental Limited





Technical Memorandum

To: Colin Hopkins, Planning Consultant From: Dr Jack McConchie
Company: Winstone Aggregates **Landscape Dynamics Ltd**
cc: Shalini Sanjeshni (Winstones) Date: 2 June 2026

RE: GWRC review of 'Hydrological Analysis'

Confidentiality

This document is confidential and may contain legally privileged information. If you are not a named or authorised recipient, you must not read, copy, distribute or act in reliance on it. If you have received this document in error, please notify us immediately and return the document by mail.

Brydon Hughes (LandWaterPeople) reviewed the “Hydrological Analysis of proposed OBDA” on behalf of Greater Wellington Regional Council (GWRC). His review was informed by a site visit with GWRC staff and the applicant on 25 February 2026.

In my opinion, Mr Hughes review is balanced, thorough, and professional. It recognises the likely small scale of potential hydrological effects of the OBDA project, and the constraints relating to existing hydrometric data and baseline conditions. He concludes:

At a catchment scale, it appears reasonable to conclude that the combination of the relatively small extent of the OBDA footprint (relative to total catchment area), and proposed mitigation measures (including provision for subsurface drainage and proposed stormwater management) are likely to maintain the overall water balance in the Waikoropupu and un-named stream catchments. The potential for positive effects on flow duration associated with extended residence throughflow time in fill materials (compared to existing regolith deposits), water retention (and subsequent release) in stormwater management structures following significant rainfall and an overall reduction in canopy interception (as the site is initially cleared and subsequently revegetated) is also noted.

However, at a sub-catchment scale, effects of the proposed development may be more significant, particularly in wetland areas identified as containing significant vegetation (swamp maire) which I understand may be sensitive to changes (both positive and negative) to the natural water level/flow regime.

The hydrological assessment provides a robust conceptual understanding of hydrological processes in catchments draining the proposed OBDA site. However, limited information is available to validate assumed baseline conditions and hydrological effects resulting from the proposed development. It is therefore recommended that the applicant develop a hydrological monitoring plan.

As discussed in the ‘Hydrological Analysis’, and recognised by Mr Hughes, there is an inherently high degree of spatial and temporal variability in hydrological processes, and consequently hydrological metrics, in the area potentially affected by the development of the proposed OBDA. By the nature of the environment, all hydrological metrics are small and subject to a high degree of spatial and

temporal variability. The magnitude and range of the various metrics are generally within the accuracy, resolution and uncertainty of the measurement device i.e., any change is unlikely to be quantifiable.

The principal driver of the hydrological processes and metrics is rainfall, which will not be affected by the development of the OBDA.

For these reasons, I did not support the need for a Hydrological Monitoring Plan as suggested by Mr Hughes. In my expert opinion, the lack of baseline data, the relatively short period over which any small sub-catchment might be affected, and the natural variability of hydrological metrics, preclude such a plan providing any useful information. Furthermore, as recognised by Mr Hughes, there are unlikely to be any quantifiable hydrological effects at a catchment scale.

The principal concern appears to be the potential ecological effects of any change in the hydrological processes, rather than the hydrological metrics themselves. In my opinion, any extremely small effects caused by the OBDA on hydrology can therefore best be assessed through the Ecological Monitoring Plan. In my professional opinion, this is the more robust, practical, and pragmatic means of assessing any small hydrological effects.

Given the interest and concern in the wetlands, and particularly the swamp maire, the Ecological Monitoring Plan could require a shallow (1m) slotted PVC standpipe and water level recorder be installed within each of the wetlands. These sensors should be installed as soon as practical and remain in place for one year after all works associated with the OBDA in the upstream sub-catchment have been completed. The water level at each wetland should be recorded at an interval no longer than one-hour.

It is also noted that Winstone Aggregates maintain a rain gauge and climate station above the existing quarry. It is my assumption that this hydrometric station will continue to be maintained and operated for the duration of the development of the proposed OBDA. The rainfall record from this gauge provides a useful baseline of the magnitude, frequency and duration of rainfalls experienced at the quarry and proposed OBDA.

In my professional opinion therefore, a separate Hydrological Monitoring Plan is not required. Any potential benefit of such a plan can be achieved through the Ecological Monitoring Plan, the existing climate station and associated rain gauge, and the installation of a water level sensor in each of the potentially affected wetlands.

If you require any clarification or explanation, please do not hesitate to contact me.





LWP

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[Redacted]

Greater Wellington Regional Council
PO Box 11646
Wellington 6011

Attention: Jessica Glover

27 May 2026

Belmont Quarry Fast Track Application - Review of Hydrological Assessment

LWP Ltd was commissioned by Greater Wellington Regional Council (GWRC) to provide comments on the draft hydrological assessment for the proposed development:

Landscape Dynamics Ltd, 2026, Hydrological Analysis of proposed OBDA. Report prepared for Winstone Aggregates Ltd. Revision 2.1, 8 May 2026

I undertook a site visit with GWRC staff and the applicant on 25th February 2026.

1. Project Background

To enable ongoing aggregate production at its Belmont Quarry, Winstone Aggregates is proposing to develop a new Overburden Disposal Area (OBDA). The proposed OBDA will extend over an area of approximately 17.3 H on land immediately north of the existing quarry footprint. The proposed OBDA will accommodate approximately 2.8 million cubic metres of overburden material removed from the expanded quarry area and be established as a permanent engineered landform. Materials deposited in the OBDA will comprise topsoil, subsoil, weathered greywacke from the Belmont Quarry site, along with process and pond fines. Construction of the proposed OBDC will be undertaken in 10 stages over a 35-year operational period, with boundaries of the individual stages coincident with existing drainage boundaries.

2. Hydrological Overview

The proposed OBDA is drained by 5 sub-catchments of two streams draining eastwards into the Hutt River. Drainage is partitioned between these sub-catchments along a ridgeline running roughly north to south across the central area of the proposed development. Sub-catchments to the west of this ridge line (identified as OBDA-1 and OBDA-3 in the hydrological assessment) drain into the Waikoropupu Stream which flows southwards from headwaters to the west and north of the proposed OBDA across the existing quarry area to the Hutt River. Sub-catchments to the east of this ridge (OBDA-2, OBDA -4 and OBDA-5) drain into an un-named catchment which also drains to the east, reaching the Hutt River approximately 700 metres north of Waikoropupu Stream. Collectively, sub-catchments within the OBDA footprint cover approximately 8 percent of the combined catchment areas of these streams.

A detailed review of hillslope hydrological processes likely operating within catchments draining the OBDA is provided in the hydrology assessment. As described, the continuity of surface flow within these catchments is spatially variable, transitioning upstream from perennial to intermittent to ephemeral in headwater sub-catchments. Boundaries between these flow regimes are likely to vary temporally in response to antecedent climate conditions.

In headwater areas subsurface flow is likely to predominate under 'typical' climate conditions, with rainfall infiltrating into the land surface and moving laterally downslope along the contact between the regolith and underlying greywacke basement. Further downstream, surface flow is initiated where the regolith becomes fully saturated. Within individual drainage lines surface flow may occur in sections where underlying greywacke rock occurs at or near the land surface, and via subsurface flow in adjacent reaches where alluvial deposits are thicker. Following significant rainfall events or prolonged periods of above normal rainfall, initiation of surface flow will occur further upstream. Conversely, during extended dry conditions surface flow may be absent in mid to upper catchment areas. However, limited hydrological information is available to quantify the baseline hydrology of catchments draining the wider Belmont Quarry site.

The assessment utilised digital terrain analysis to identify the potential surface drainage network, with the occurrence of surface flow initially assigned to reaches assigned a Strahler order of six or greater. However, based on field observations, the likely extent of perennial surface flow was modified to include reaches with a Strahler order of eight or greater, with flows assumed to become intermittent at a Strahler order of seven and largely ephemeral in reaches assigned a Strahler order of six or less. As illustrated on Figure 2.3 of the assessment, this analysis indicates perennial flow is only likely to occur in a short reach of the OBDA-5 sub-catchment, downstream of a small wetland, with flow in the remaining sub-catchments generally characterised as intermittent or ephemeral. While it is not possible to validate this assessment based on the limited data available, it appears largely consistent with flow conditions described in the Section 4.1 of the report and observed during the February 2026 site visit.

The assessment notes the limited groundwater resource present in the OBDA area. Greywacke basement rock underlying the OBDA potentially hosts a spatially extensive but low permeability aquifer system in secondary permeability within the rock mass. However, these greywacke materials generally exhibit an extensive weathering zone along their upper surface where extensive hydrochemical alteration of the rock mass has occurred. This weathering zone typically exhibits low permeability, limiting the hydraulic connection between the land surface and the underlying rock mass. Interaction between groundwater in the greywacke basement and overlying surface waterways is therefore likely to be largely restricted to limited baseflow discharge in mid to lower sections of the larger catchments draining the site, where streams are incised sufficiently to expose the intact rock mass. Due to their limited thickness and topography, regolith materials overlying the greywacke bedrock are likely to contain a limited groundwater resource.

Table 3.1 of the assessment lists flow statistics for the Waikoropupu Stream derived from the Earth Sciences NZ River Maps database. These figures indicate a specific yield at median flow of the order of 0.12 L/s/Ha, with a similar figure derived for the un-named catchment to the north. These low specific yield values are consistent with limited groundwater storage, suggesting surface runoff is

likely to largely reflect overland flow and interflow within the regolith materials. Such conditions support the inference that perennial flow is likely to be limited to lower elevation areas. Discharge in upper catchment areas is also likely to be reduced as a result of canopy interception by the existing landcover.

Figure 2.5 of the hydrological assessment identifies a wetland within the ODBA footprint near the confluence of two headwater tributaries in the in the OBBA-5 catchment. The assessment notes (Section 2.4) this feature likely reflects impeded drainage associated historical landslide debris. This wetland will be removed as part of the ODBA development. The figure also identifies wetlands immediately downstream of the ODBA boundary in the ODBA-2 and ODBA-4 catchments. The assessment does not provide any characterisation of the baseline condition or hydrological function of these wetland areas.

3. Hydrological Effects of Proposed ODBA Development

Based on a qualitative assessment of hydrological processes occurring on the ODBA site and limited site observations, the hydrological assessment states:

“...existing hydrological processes will be maintained within the ODBA, including both surface and subsurface flow, and discharge into each of the various drainage lines within the ODBA will continue, the hydrology of any wetlands downstream of the ODBA will be unchanged.

and concludes overall that:

“...once the principles within the Geotechnical and ESC Assessments are implemented, any effects of development of the ODBA will be negligible and can be considered ‘less than minor’ beyond its boundary. There will be no measurable adverse effects on hydrology or hydrological processes beyond the property boundary”.

This conclusion is supported by a range of observations including:

- The ODBA is located on the interfluvium between five small headwater gullies.
- Individually sub-catchment areas within the ODBA footprint are relatively small (2.9 to 6.9 Ha) and collectively comprise a small percentage of the overall catchment area of the Waikoropu and un-named streams which drain the wider site.
- Sub-catchments within the ODBA exhibit limited surface runoff under existing site conditions (except possibly during intense or prolonged rainfall).
- Proposed ODBA development stages are coincident with sub-catchment boundaries.
- Rehabilitation (at least from a hydrological perspective) of each stage will be completed prior to work commencing on the next stage.
- Experience with the Cottles ODBA provides a real-world analogue for how runoff from the site can be managed to avoid adverse effects.

It is noted that the conclusion of there being no measurable effects on hydrological processes downstream of the OBDA is predicated on the “*...principles within the Geotechnical and ESC Assessments being implemented*”. These include:

- Installation of subsurface drainage (Geotechnical Assessment, Section 10.2.1, Appendix F) including Type 1 drains along main gully channels and Type 2 drains to manage localised seepages identified during foundation preparation.
- Inclusion of a rock fill drainage blanket at each bench level to provide informal drainage pathways to manage pore water pressure within the fill (Geotechnical Assessment, Section 10.2.2).
- Construction of clean water diversions around working areas to discharge flows to the “*....original gully/tributary catchment where it would have normally discharged*” (ESC Report, Section 2.1).
- Diversion of runoff from working/disturbed areas to sediment retention ponds (SRPs) or decanting earth bunds (DEBs), with treated water discharged to the “*original gully or catchment that the treated area would have naturally discharged to*”.

Based on the information provided, I consider the assessment is conceptually robust; although I note it is largely reliant on qualitative assessment and limited field observations. As such, the lack of empirical data means it is not possible to reliably characterise baseline conditions or validate assumed effects of OBDA development on site hydrology, particularly in hydrological environments such as wetlands where increased flow variability (both positive and negative) have the potential to result in adverse effects.

At a catchment scale, it appears reasonable to conclude that the combination of the relatively small extent of the OBDA footprint (relative to total catchment area), and proposed mitigation measures (including provision for subsurface drainage and proposed stormwater management) are likely to maintain the overall water balance in the Waikoropupu and un-named stream catchments. The potential for positive effects on flow duration associated with extended residence throughflow time in fill materials (compared to existing regolith deposits), water retention (and subsequent release) in stormwater management structures following significant rainfall and an overall reduction in canopy interception (as the site is initially cleared and subsequently revegetated) is also noted.

However, at a sub-catchment scale, effects of the proposed development may be more significant, particularly in wetland areas identified as containing significant vegetation (swamp marie) which I understand may be sensitive to changes (both positive and negative) to the natural water level/flow regime¹.

Given the lack of quantitative data and analysis to validate assumed baseline conditions and hydrological effects associated with the proposed development, I recommend that the applicant develop a hydrological monitoring plan which may include provision for monitoring of:

¹ Based on discussions regarding site ecology with Melanie Dixon on 18th May 2026.

- Rainfall
- The spatial extent of intermittent/perennial discharge in headwater gullies
- The water level regime in wetlands containing significant indigenous vegetation.

The plan should also outline a methodology for:

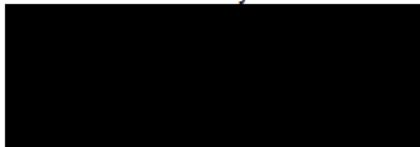
- Characterising baseline hydrological conditions.
- Identifying any departure from baseline hydrological conditions attributable to development of the OBDA.
- Implementing mitigation actions should monitoring identify a change from baseline conditions which may adversely affect significant wetland vegetation or other hydrological characteristics of the site.

4. Summary

The hydrological assessment provides a robust conceptual understanding of hydrological processes in catchments draining the proposed OBDA site. However, limited information is available to validate assumed baseline conditions and hydrological effects resulting from the proposed development. It is therefore recommended that the applicant develop a hydrological monitoring plan which includes provision for monitoring key hydrological metrics including rainfall, flow permanence and the water level regime in sensitive wetland areas, along with a methodology for identifying and managing any departure from baseline conditions identified.

It is also recommended that mitigation measures outlined in the in the Geotechnical and Erosion and Sediment control assessments are further developed and carried through into final site management plans.

Yours Sincerely



Brydon Hughes
Hydrogeologist





Memorandum

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Attention: Colin Hopkins

Company: c/- Winstone Aggregates

Date: 11 June 2026

From: Rhys Girvan (Registered Landscape Architect)

Message Ref: RFI - Belmont Quarry Overburden Disposal Area (OBDA) Draft LVA

Project No: W15069

This memorandum has been prepared to address the requests for further information (RFI) relating to the proposed Belmont Quarry Overburden Disposal Area (OBDA) received from Rose Armstrong (Landscape Architect) on behalf of Hutt City Council. The response should be read alongside the draft *Belmont Quarry Overburden Disposal Area Landscape Effects Assessment* (LVA) prepared by Boffa Miskell, dated 9 March 2026, and the BlueGreen Ecology report, *Belmont Quarry OBDA Development: Ecological Values, Effects and their Management*, dated 6 May 2026.

To assist with clarification, each RFI request is set out in full before responding.

1. OBDA Site – Existing contours in the buffer area retained around OBDA footprint

Please provide clear existing contour information (contour heights) for areas inside the OBDA site, but outside the OBDA footprint. (i.e. those parts of the OBDA site surrounding the footprint, retained and not modified under the proposal).

Has the design team considered whether active planting at Stage 1 in these areas, (particularly on the ridge adjacent to the OBDA footprint to the east and south-east), could assist in mitigating the adverse landscape / visual effects of later stages of the proposal, in views from the existing residential context to the east?

The requested contour information within the OBDA Site was previously provided in **Figure 7** of the Draft Graphic Supplement (Boffa Miskell, 6 March 2026). Since this was prepared, BML has since been made aware that the footprint of the OBDA has been amended to omit this from extending beneath the overhead transmission lines to the north-west of the OBDA. This will result in a reduction in the overall footprint by approximately 0.6 hectares from that previously assessed and results in no material change in the nature or level of landscape effects, including available views. To assist with further understanding of the proposed OBDA and the landform which remains outside the OBDA within the Site, a zoomed in plan of this area @ 1:3,000 showing 5 metre contours is included as **Figure A** attached. The updated plans reflecting this change will be included in the final LVA.

The design team has considered proposed staging and progressive rehabilitation strategy in relation to changes in the existing landform and the progressive nature of the proposed development. It is also important to note that the OBDA is not proposed to be constructed as a single exposed landform; each stage is to be developed progressively, with completed faces topsoiled, stabilised, hydroseeded and available for progressive revegetation within the OBDA footprint as soon as final design levels are achieved. Accordingly, the recommendations require planting areas, species mix principles, maintenance/monitoring, active

indigenous planting, managed natural regeneration and later enrichment planting committing to the progressive planting of completed slopes following each identified stage during operation. Beyond this, proposed planting of the OBDA is designed to blend in with ongoing regenerating vegetation outside the OBDA footprint to mitigate adverse landscape and visual effects.

In relation to views from the existing residential context to the east, the LVA identifies that most views from the Hutt Valley floor are screened or largely concealed by the Western Escarpment. The more relevant eastern residential audience is therefore over longer distances from elevated areas of the Eastern Hutt Hills, represented by Aldersgate Grove and Lord Street between 1.4 and 2.3 km from the proposed OBDA. The scale of the OBDA also means any planting located in the buffer is unlikely to assist in terms of screening elevated distance views otherwise available along the Eastern Hutt Hills.

On that basis, active planting progressing from the completion of each stage is already part of the mitigation logic for the proposal addressing the effects of the OBDA itself. Its role is principally to address the extent of exposed overburden which is visible to soften and progressively assimilate completed faces into the broader vegetated backdrop, rather than to provide an immediate or complete visual screen. Beyond this, no further planting is considered necessary outside the eastern or south-eastern ridgeline which is currently comprised of regeneration native vegetation that will blend with progressive rehabilitation of the proposed OBDA. This cohesive continuation of vegetation also ties the perceived landform modification within this Site where visible in long distance views and assists with managing potential adverse effects assessed as no more than minor.

2. Proposed Rehabilitation

The Draft LVA includes photos of the Belmont Quarry Cottle Block to illustrate how the proposed rehabilitation of the OBDA could appear over time.

Please confirm that the rehabilitation strategy for the Cottle Block was the same as that proposed for the land-swap OBDA – i.e. predominant grass hydroseeding to faces, with small areas only of active planting of indigenous species and enrichment planting at 5 years; and slopes predominantly at 1:2 gradient.

Broadly, in terms of the same overall rehabilitation principle.

The Cottle Block demonstrates the same general approach of stabilising overburden faces laid back at 1(v):2(h) through hydroseeding and allowing vegetation establishment/regeneration to progressively assimilate the landform. While there is similar identification of mitigation planting on the sheltered sites on the west and southern permanent face of the OBDA, the proposed OBDA contains a more explicit rehabilitation framework over the whole OBDA, including managed natural regeneration, active indigenous planting, enrichment planting after five years, riparian restoration, pest control, monitoring and performance standards.

In short, the Cottle Block supports the feasibility of the general rehabilitation approach, but it should not be treated as confirming that the same planting proportions, enrichment timing or detailed rehabilitation specification apply to the proposed land-swap OBDA.

3. Natural Character

Please provide a summary of the findings from ecology reporting for the project (summary baseline values at the site and effects from the proposal) which have informed the Draft LVA ratings for the baseline level of natural character at the site, and the assessed natural character effect from the proposal.

The ecological reporting (BlueGreen Ecology, 6 May 2026) identifies the OBDA Site as a modified but regenerating hill-country environment within the Wellington Ecological District and part of the Belmont-Dry Creek Key Native Ecosystem. Historically, this ecological district was largely forested but is now modified by farming and urbanisation, with pasture, gorse and regenerating shrublands widespread. The ecological report also records that the Site and adjoining Belmont Regional Park would historically have supported

tawa, kāmahī, podocarp forest, with the stream riparian system and side gullies showing signs of former pukatea–swamp maire assemblages.

Within the OBDA Site, the ecology report identifies a mosaic of vegetation communities reflecting different stages of regeneration following former farming use. These include gorse shrubland, ridgeline exotic treeland, tree fern gully, early, middle and late seral broadleaf forest, mānuka mixed broadleaf forest and a small area of natural inland wetland. The ecology report assesses the OBDA as having an overall moderate ecological value, with component values ranging from negligible to high depending on vegetation type, hydrological setting and the presence of species such as swamp maire and ramarama.

Natural character baseline

These ecological findings support the LVA assessment that the baseline natural character of the affected stream and gully context is moderate. Natural elements, patterns and processes remain evident through the ephemeral and intermittent headwater drainage systems, damp gullies, regenerating indigenous shrubland/forest, and limited wetland habitat. However, these attributes occur within a modified setting influenced by historic farming, exotic vegetation, weed species, existing quarry activity and the broader modified edge of the Western Escarpment. The ecology report also notes that the ephemeral systems have functional importance in directing sub-catchment flows, while intermittent reaches are assessed as low aquatic value and lower western perennial stream values as moderate. The central western gully and eastern main stem wetland contexts assessed as high value have been avoided by the OBDA Site.

Natural Character Effects

The ecology report identifies that the proposed OBDA would require the staged clearance of approximately 9 ha of indigenous seral broadleaf shrub and forest over approximately 35 years and the reclamation of approximately 416 m of mostly intermittent stream. The affected vegetation includes damp gullies across six main gully systems. The footprint has been refined to minimise wetland loss, now approximately 0.07 ha, and to avoid the central western swamp maire gully.

The proposal will therefore temporarily reduce the naturalness of the affected headwater gully systems through vegetation clearance, landform modification and stream replacement. This supports the LVA conclusion that natural character effects will be **low-moderate** adverse during operation. That rating recognises the direct modification of natural drainage and vegetation patterns, while also taking into account the modified baseline condition, the mainly ephemeral/intermittent nature of the affected waterways, the staged construction sequence, and proposed rehabilitation and effects management.

Mitigation / rehabilitation

The ecology report records that the proposal has already been refined to avoid and minimise ecological effects, including avoidance of the best swamp maire gully, the mature pukatea lower south-western gully, the south-eastern waterbody and most eastern natural inland wetlands. It also identifies retention of hydrological flow patterns as a key design requirement, particularly because these flows support the six tributaries and associated wetland hydrology.

Rehabilitation is proposed to restore native vegetation communities and intermittent stream systems across the OBDA, with the long-term objective of leaving the site in fully native vegetation cover. The ecology report is clear, however, that this is a long-term process, extending over approximately 35–40 years, with a time-lag before full ecological function is restored. Notwithstanding this time lag, the Ecological Assessment confirms that the full revegetation of seral broadleaf, tree fern, manuka areas and waterways will remedy entirely the clearance and loss of those same current vegetation communities.

4. Viewpoint 4

The Draft LVA assesses that the proposal will not be visible from Viewpoint 4. However, the ZTV indicates that a small number of existing dwellings along Liverton Road, (close to Viewpoint 4), may gain views of the proposed OBDA.

Please provide assessment of effects for the properties along Liverton Road indicated in the ZTV as possibly gaining views of the proposal. Is it likely that any of these properties have views of the existing quarry? At what stage might the OBDA become visible, and to what likely extent and duration?

It must be emphasized that the Zone of Theoretical Visibility (ZTV) identifies theoretical bare-ground visibility and does not account for screening by vegetation, buildings or detailed local topography. Field assessment from Viewpoint 4 confirmed no view of the OBDA from the public road, and Appendix 2 of the LVA notes that nearby Liverton Road properties are generally lower and more typically obscured by intervening topography.

However, based on the ZTV, it is accepted that a small number of dwellings along Liverton Road may have some limited theoretical visibility. If views are available, they are expected to be glimpsed or partial, most likely of upper or southern/western parts of the OBDA, and not of the whole active landform. Visibility is unlikely during Stages 1–3 and, if it occurs, would more likely arise from Stage 5/6 onwards as works extend into the south-western, western, central and southern parts of the site. Any such visibility would be intermittent and progressively softened by rehabilitation. The likely level of effect for those dwellings would be very low to low adverse during visible stages and typically reducing to very low or neutral at closure.

For completeness, the anticipated visual effects from each dwelling anticipated in this area is set out in **Appendix A** below, with corresponding dwellings assessed identified in **Figure B** attached.

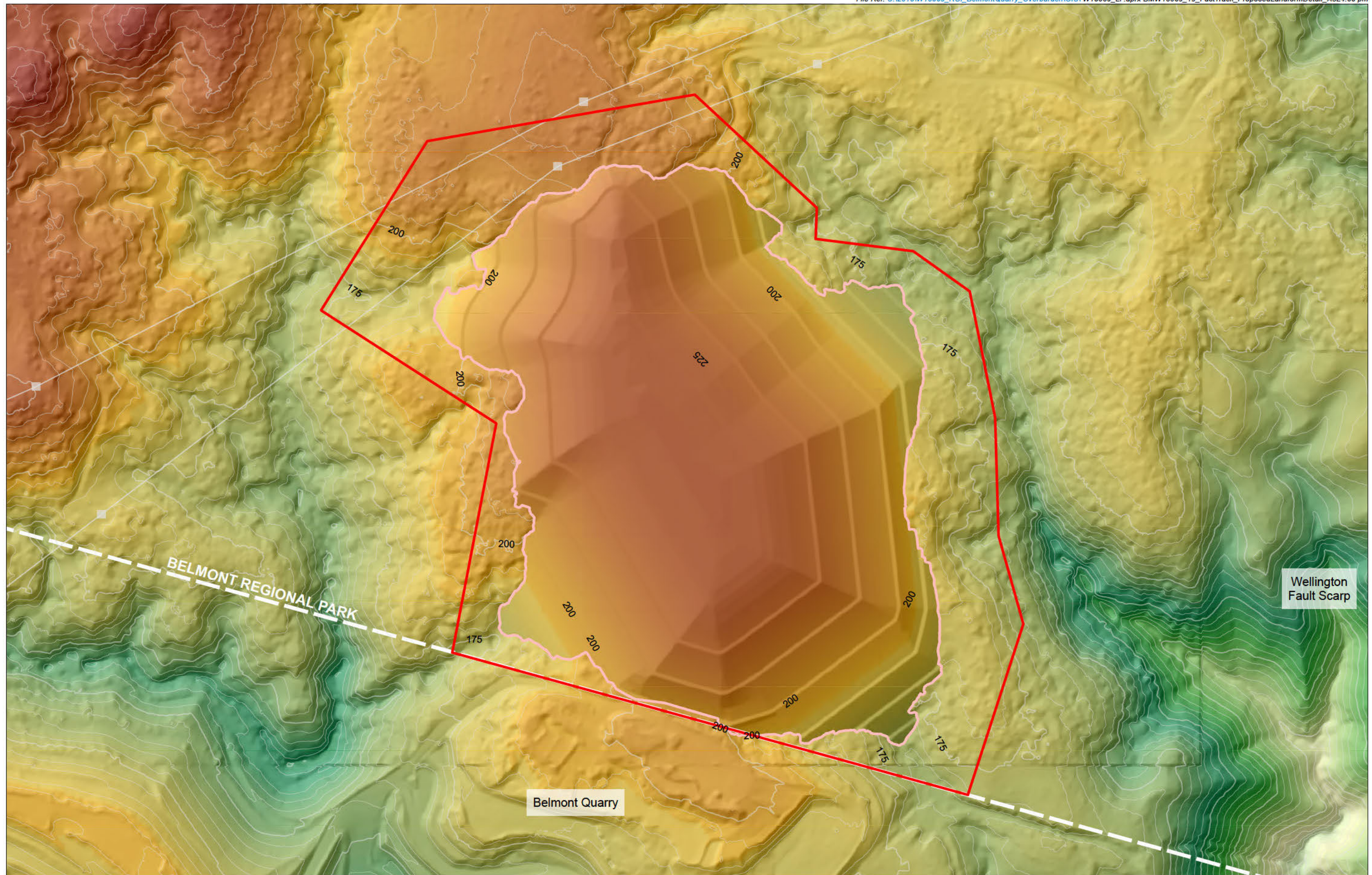
Appendix A: Visual Effects from Dwellings on Liverton Road

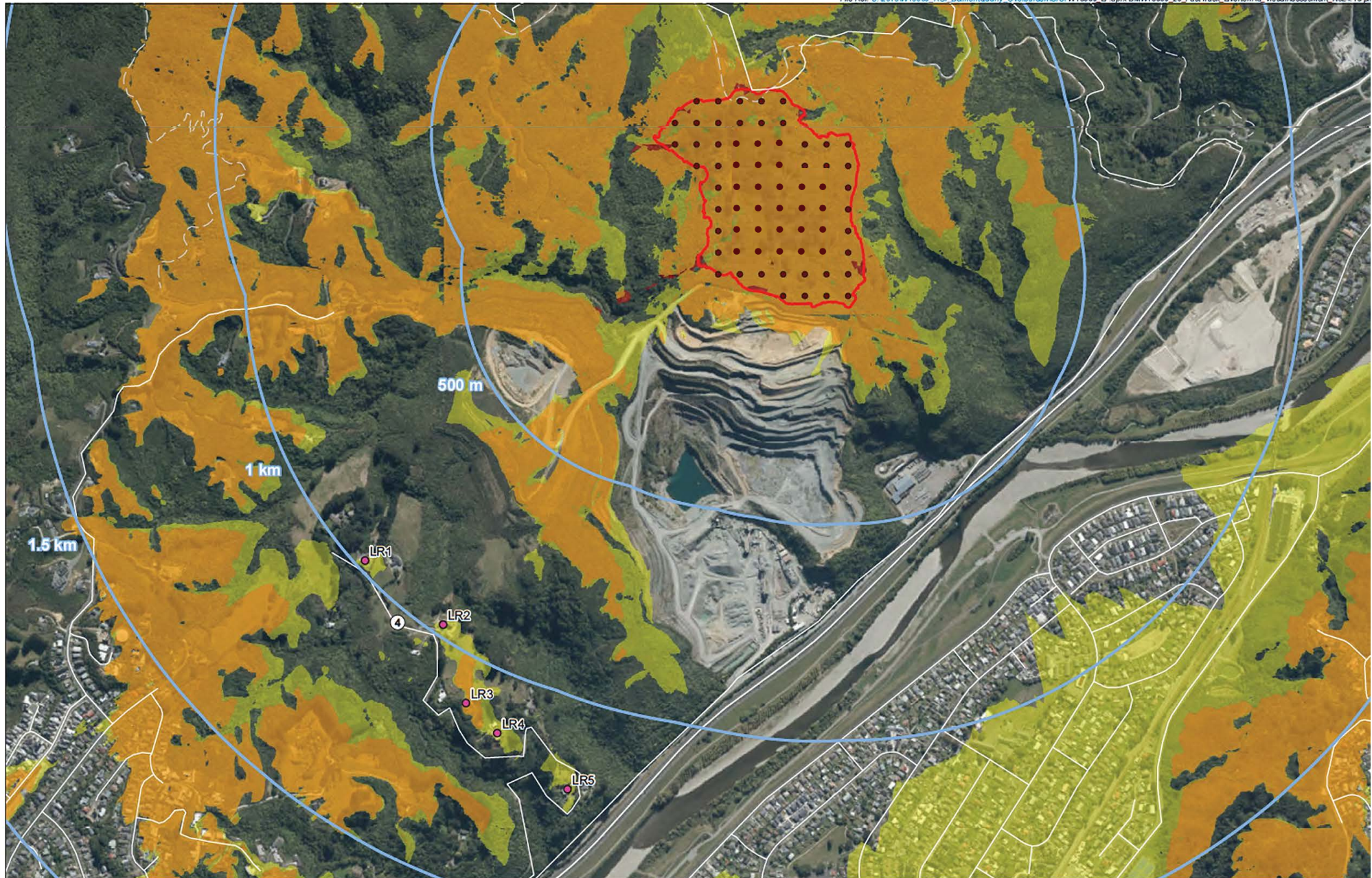
Property ID	Address	Likely Nature of Views	Stages	Likely Description of Visual Change	Level of Effect ¹
LR1 (1 kilometre from the Site)	198 Liverton Road	From this dwelling, likely views to the northeast towards the Site are typically obscured by intervening vegetation and topography. No potential views of the Site or existing quarry are currently identified, remaining obscured beyond the rehabilitated Cottle Block.	1-10	From here, no views of the proposed OBDA development will be available, where the OBDA will remain concealed beyond intervening vegetation and landform. Any visual effects from this viewpoint during operation and at closure will therefore be neutral.	Neutral
LR2 (1 kilometre from the Site)	174 Liverton Road	From this dwelling, likely views northeast towards the Site are associated with the rehabilitated OBDA within the Cottle Block. Glimpses of the upper benches of the existing Belmont quarry are possible.	1-6	Stages 1 to 6 will remain entirely concealed by existing landform and no views of the proposed OBDA development will be available.	Neutral
			7-10	Stages 7 and 9 OBDA will remain concealed beyond existing landform, whereas Stage 8 OBDA will become visible to this dwelling as the southern extent of the OBDA raises from RL 200m to RL 220m, changing a part of the skyline. These available views are however glimpsed. A further rise in topography during Stage 10 will be visible as the proposed OBDA reaches its final RL at 230m. At the same time, the engineered landform of the Stage 8 OBDA will become progressively rehabilitated and visually softened by rehabilitation plantings.	Low Adverse
			Closure	At closure, the exposed faces of the OBDA will be established with native plantings and form a coherent vegetated skyline with the Western Escarpment in the mid ground.	Very Low Adverse

¹ Level of Effect: Very Low, Low, Low-Moderate, Moderate, Moderate-High, High, Very High

Property ID	Address	Likely Nature of Views	Stages	Likely Description of Visual Change	Level of Effect ¹
LR3 (1.1 kilometres from the Site)	146 Liverton Road	From this dwelling, likely views northeast towards the Site are largely concealed beyond intervening vegetation.	1-3	Stages 1 and 2 OBDA will remain largely concealed by intervening vegetation. During Stage 3, glimpses of the OBDA might be possible through gaps between vegetation as the OBDA raises from RL 210m to RL 220m.	Very Low Adverse
			4-6	Overburden development during Stages 4 and 5 in southeastern and southwestern gullies will remain concealed by existing landform of the Site. During Stage 6, a further elevation in topography as a result of overburden deposit will become visible from this dwelling. Glimpses of the OBDA will be seen in context of the existing Belmont Quarry.	Very Low Adverse
			7-10	In latter stages, this dwelling may obtain views of the OBDA landform during operation, and the gradual change in skyline sequence. As the OBDA develops through to Stage 10, the southwest-facing slopes will be increasingly rehabilitated which softens the engineered landform resulting from previous stages.	Low Adverse
			Closure	At closure, the exposed faces of the OBDA will be established with native plantings and form a coherent vegetated skyline with the Western Escarpment in the mid ground.	Very Low Adverse
LR4 (1.1 kilometres from the Site)	134 Liverton Road	From this dwelling, the Site is currently partially visible and seen adjacent to the existing Belmont Quarry.	1-3	During Stages 1 to 3, the removal of vegetation within the northern extent of Site will be visible, however, the deposit of overburden will be barely visible from this dwelling as the northern extent of the Site is largely concealed beyond intervening landform.	Very Low Adverse
			4-6	Stages 4 and 5 OBDA will continue to be visually concealed beyond landform and no views will likely be visible from this dwelling. During Stage 6, glimpsed views of the OBDA can be possible as the deposit of overburden in the central extent of the Site raises the topography from RL 200m to RL 220m.	Very Low Adverse
			7-10	During Stage 7, the deposit of overburden in the northern extent of the Site will be viewed as an extension of Stage 6, where views remain glimpsed. The greatest visual change will occur during Stage 8 when the proposed OBDA development progresses in the central and southern extent. While this change is evident and will alter the skyline sequence, this will occur progressively over several years and the engineered landform resulted from this stage will be seen in the context of the existing Belmont Quarry. Further elevation in topography during Stages 9 and 10 will continue to be visible to this dwelling, on top of the rehabilitating southwest-facing slopes development in previous stages, in particular Stage 8. As the deposit of overburden continues, the lower	Low Adverse

Property ID	Address	Likely Nature of Views	Stages	Likely Description of Visual Change	Level of Effect ¹
				southwestern slopes will become more established with native vegetation, softening the engineered landform of the OBDA.	
			Closure	At closure, the exposed faces of the proposed OBDA will be established with native plantings and will form a coherent vegetated skyline with the broader Belmont Hills.	Very Low Adverse
LR5 (1.2 kilometres from the Site)	95 Liverton Road	From this dwelling, existing views northeast are largely concealed by intervening topography and vegetation. Glimpsed views of the Site and the upper benches of existing Belmont Quarry may be possible.	1-6	Overburden works associated with Stages 1 to 6 will remain entirely concealed beyond landform and vegetation.	Neutral
			7-10	Views of Stage 7 OBDA will remain entirely concealed, however glimpses of the proposed OBDA development during Stages 8 to 10 are possible where screening of landform and vegetation is not available. Where visible, the OBDA will be seen above the existing Belmont Quarry.	Very Low Adverse
			Closure	At closure, visible faces of the OBDA will become established with native plantings, forming a vegetated skyline that appears coherent with the broader Belmont Hills. Any views of the proposed OBDA will become indiscernible.	Neutral





Project Reference: BGL000252 v1.1

10 July 2026

Winstone Aggregates
PO Box 17-195
Greenlane
Auckland.

Attention: Paul Herbert

Belmont Quarry OBDA – Response to HCC Geotechnical Peer Review

1 Introduction

Winstone Aggregates [Winstones] propose to develop a new overburden disposal area [OBDA] on land adjacent to their Belmont Quarry in the Greater Wellington Region.

The land is currently part of Belmont Regional Park and both a land swap and application for consent are being advanced under the Fast Track Approvals Act 2024.

In advance of lodgment of the substantive application, Winstones have been engaging with stakeholders including Hutt City Council, who have engaged ABuild Consulting Engineers Limited [ABuild] to review the geotechnical assessment report prepared by Baseline Geotechnical Limited [BGL]¹.

ABuild have prepared and issued draft Peer Review Comments dated 24 June 2026 [included in Appendix A] and a meeting was held on Friday 3 July to discuss the review comments.

The purpose of this document is to provide guidance on how we propose to address the queries raised. In most cases the actual technical detail of the response will be provided in an updated geotechnical assessment report.

This additional work has been carried out as an extension to our offer of service dated 24 June 2025.

¹ BGL [2026] Geotechnical Assessment Report Belmont Quarry Proposed Overburden Disposal Area. Prepared by Baseline Geotechnical Limited for Winstone Aggregates. Dated 05 May 2026 ref: BGL000252 v1.2

2 ABuild review

The ABuild review [Appendix A] set out seven numbered queries. We address each of these in turn in the following sections.

1. Overburden Disposal Areas Design Criteria

a. Derivation of Importance Level

This review item focusses on the seismic design criteria. The basis for our adopted seismic loads in our current report version [v 1.2 dated 5 May 2026] is set out in Table 1 below.

Table 1: Existing basis for derivation of seismic loads

Parameter	Value	Comment
Importance Level	IL 1	NZS 1170:0. Table 3.1 Low consequence for loss of human life
Design Life	100 years or more	NZS 1170:0. Table 3.3 The OBDA landform will exist in perpetuity.
Derived Annual Exceedance Probability	1/250	NZS 1170:0. Table 3.3
Derived ULS Seismic Load	0.66 g	TS 1170:5 2025 worst case using default site class and Lower Hutt from Table 3.1
Earthquake Magnitude	7.7	

One of the key items raised by the reviewer is the selection of Importance Level 1 [IL1] and the influence that this has on deriving ULS seismic loads. Based on our discussions during our meeting of 3 July, we understand that the reviewer considers that IL1 may be appropriate for the gully system away from the interface with the quarry slopes. However, they consider Importance Level 2 [IL2] may be more appropriate where the OBDA is located above the quarry batters and quarry personnel will be operating within the quarry, due to a life safety risk.

At our meeting of 3 July ABuild indicated that they would expect Importance Level to be determined in accordance with NZS 1170:0 and that eventual seismic loads should be calculated in accordance with MBIE Module 1 rather than TS1170:5 [which is only adopted for structures by Hutt City Council].

We have considered the issue raised by the reviewer. We recognise that there is an element of subjectivity in assessing the life safety risk, however we propose to consider the effect on design if IL2 were to be adopted.

In this instance the key factor for determination IL2 is the life safety risk for operational personnel in the quarry. Once quarry excavation is complete, those personnel will no longer be present in the quarry pit. On this basis the design life for this seismic case is directly linked to the quarry life and the staged development of the OBDA.

We understand that the published estimate of Quarry Life is 40 years. However, the OBDA will be constructed over the course of the life of the quarry, and therefore the conditions that could result in the need for consideration of IL2 do not exist in the early stage, concurrent development of the quarry and OBDA.

Winstones have provided us with OBDA stage volumes and timings for filling of the OBDA. These are set out in Table 2 below.

Table 2: OBDA staged volumes and timings

OBDA Stage	Cumulative Volume [m ³]	From commencement	Indicative Year
Stage 1	538,000	Year 11	2037
Stage 2	594,000	Year 12	2038
Stage 3	810,000	Year 14	2040
Stage 4	1,352,000	Year 16	2042
Stage 5	1,425,000	Year 17	2043
Stage 6	1,811,000	Year 19	2045
Stage 7	1,870,000	Year 20	2046
Stage 8	2,448,000	Year 30	2056
Stage 9	2,666,000	Year 38	2064
Stage 10	2,729,000	Year 40	2066

When comparing the staged placement volumes against plans of the proposed OBDA staging it is clear that placement adjacent to the Quarry slopes does not commence until after Year 15 [refer Appendix B].

On this basis, the design life for the IL2 seismic scenario would be set at 25 years, which is the likely exposure period for the quarry personnel considered. An IL1 case for post quarry pit excavation is also considered.

Calculated seismic loads for the IL2 and IL1 scenarios adopting the peer reviewer methodology are set out in Table 3 below.

Table 3: Basis for derivation of seismic loads post peer review meeting

Parameter	IL 2 Design Case	IL1 Design Case	Comment
Importance Level	IL 2	IL1	NZS 1170:0. Table 3.2 - Medium consequence for loss of human life.
Design Life	25 years	>100 years	NZS 1170:0. Table 3.3 – [IL2] Near completed OBDA slope above the quarry highwall with the quarry staff still operating in the Quarry Pit. [IL1] long term quarry closure case.
Derived Annual Exceedance Probability	1/250	1/250	NZS 1170:0. Table 3.3
Derived ULS Seismic Load	0.47g	0.47g	MBIE Module 1. Table A1.
Earthquake Magnitude	7.5	7.5	
Topographic Amplification Factor.	1.2	1.2	MBIE Module 6. Table 5.1. For cliff features >30 m in height where crest width is not significantly less than base width.
Adjusted ULS Seismic Load	0.56 g	0.56g	MBIE Module 1/MBIE Module 6.

It is evident that regardless of whether an IL2 case or IL1 case is considered for the design, the resulting recurrence intervals, and ULS PGA values and magnitude are the same, because the design life for each is different. We also note that the PGA values and earthquake magnitudes calculated using the methodology recommended by the peer reviewer are lower than those already considered in the design reporting.

b. Amplification Factor

The peer reviewer has requested consideration of seismic amplification factors. These are accounted for in Table 3 above.

c. Potential runout and off set from quarry slopes

These will be addressed in a revision to our OBDA geotechnical assessment report.

2. Chartered Professional Engineer Certification

We understand that this item was satisfactorily resolved during our meeting of 3 July. This is not a building consent, which requires CPEng certification, and we understand that Hutt City Council has no specific requirements with respect to Resource Consents.

To provide some guidance with respect to conditions of consent that might be imposed on the OBDA construction, we recommend that consent conditions refer to the definition of a geo-professional as set out in NZS 4404:2010.

3. Extent and Scope of Ground Investigation

The peer reviewers have requested additional ground investigation [a minimum of one borehole] where the crest of the proposed pit is positioned in proximity to the toe of the proposed OBDA.

Rather than undertaking this specific investigation now, we propose to manage the identified uncertainty by:

- Undertaking a preliminary assessment for this area based on observed conditions and existing quarry data.
- Provided that the preliminary assessment does not identify significant geotechnical slope performance issues, then incorporate consent conditions requiring detailed ground investigation of the area identified by the reviewers prior to the commencement of Stage 4.
- Providing contingency options that allow for:
 - A greater setback from the crest of the highwall [reducing OBDA volume].
 - Reducing OBDA front batter angles [reducing OBDA volume].
 - Retaining an increased bench width within the final quarry cut slope itself [reducing final extraction volumes].

We consider that this approach can appropriately manage the geotechnical risks and uncertainties identified by the reviewers.

4. Slope Stability Analysis and Selection/Verification of Design Parameters

The peer reviewers have requested a further cross section and stability analysis through the quarry highwall where the OBDA is positioned above the cut faces.

As set out above we will prepare a preliminary cross section and stability analysis based on existing information and incorporate this into a revision to our OBDA geotechnical assessment report.

5. Embankment Slope Stability (adjacent to proposed quarry excavation)

This peer review item fundamentally addresses a request for additional detail in the OBDA foundation preparation such as undercuts, shear keys and drainage in the area adjacent to the quarry highwall cuts.

We propose including additional information on these matters along with the additional design sections for this area of the OBDA in a revision to our OBDA geotechnical assessment report.

6. Subsoil Liquefaction and Associated Slope Stability Analyses

This peer review item indicates a potential concern around liquefaction of placed materials and suggests that a phreatic surface extends into the OBDA.

For clarity, our analytical work to date conservatively assumes a fully saturated gully floor in highly weathered greywacke rock (as identified in the gully inverts during field mapping). The OBDA fill will be under drained by the proposed sub-soil drain network, rock fill toe buttresses and by informal drainage blankets made up of weathered rock fill as described in Section 10.2 of our reporting.

The overburden materials are expected to include residual greywacke soils, which are clay rich and when excavated are typically at or slightly below optimum moisture content. These materials are not prone to liquefaction because of their material characteristics (high clay content). Remaining overburden materials are expected to include unsaleable highly and moderately weathered greywacke rock, which is equally unlikely to liquefy.

Groundwater pressures rarely develop in greywacke backfills particularly where sufficient drainage pathways (as described above) exist within the backfill. We have historical information from vibrating wire piezometers installed in two OBDA sites in Auckland to provide guidance on this issue.

We agree that the sediments that will eventually infill the process water ponds could be subject to liquefaction, shortly after encapsulation and prior to dewatering and consolidation. This will be addressed by setback of the fines cells from critical slope zones and staged dewatering/consolidation.

We propose to include additional discussion on liquefaction risk and provide historical groundwater monitoring information from OBDA placement at other comparable sites in a revision to our OBDA geotechnical assessment report.

7. Validation of Soil Strength Parameters During Construction

This review item is not related to design but is more forward looking in terms of construction monitoring and validating material parameters.

While we accept that development of a construction management plan (CMP) and monitoring plan (MP) are both reasonable methods of addressing this issue, it is too early to prepare these documents in full (as they will require contractor input, and will need to directly address consent conditions, neither of which are available). However, we agree that the geotechnical content that would be included in such plans can be addressed now. We will revise our report to include this information.

3 Closure

We trust that this document provides guidance on the approach that will be followed to address the review queries raised by Hutt City Councils peer reviewers. More detail on some of the items raised will be included in a revised geotechnical assessment report. Other investigation detail and validation items are proposed to be addressed within the framework of the staged development of the OBDA and associated consent conditions.

We understand that upon receiving this response and an update to our geotechnical assessment report ABuild propose to finalise their peer review report and prepare draft conditions for HCC's consideration. We would be pleased to collaboratively discuss the wording of the consent conditions with HCC and their technical reviewers so that an agreed set of conditions relating to geotechnical risk and uncertainty can be provided to the expert panel who will be assessing the application under the FTAA.

This report has been prepared for the exclusive use of our client Winstone Aggregates, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We trust that this letter report meets your present requirements. If you have any queries or wish to discuss any aspect, please contact the undersigned.

For and on behalf of Baseline Geotechnical Limited



Cameron Lines
Director

Appendix A: ABuild Geotechnical Peer Review

OUR REF 15266 (DRAFT)

24 June 2026

Stephen Dennis
Hutt City Council
30 Laings Road
Lower Hutt

ATTENTION: Stephen Dennis

EMAIL: [REDACTED] by email only

**GEOTECHNICAL PEER REVIEW COMMENTS, OVERBURDEN DISPOSAL AREA,
BELMONT QUARRY PROPOSED EXPANSION, KELSON, LOWER HUTT, WELLINGTON**

1.0 INTRODUCTION

Hutt City Council (HCC) has commissioned ABuild Consulting Engineers Limited (ABuild) to carry out a peer review of the Geotechnical Assessment Report prepared by Baseline Geotechnical Limited (Baseline) dated 05 May 2026 to provide comments on the report from the geotechnical perspective.

The peer review has been carried in accordance with the Short Form Agreement (SFA) signed between HCC and ABuild dated 14 May 2026, and the Engineering New Zealand Practice Note 2: Peer Review, version 2, April 2018.

2.0 SCOPE AND PURPOSE OF THE PEER REVIEW

The scope of the peer review includes a high-level peer review of the following report:

- [Belmont Quarry] Geotechnical Report - Draft for Council Review PTP

The purpose of the peer review is to provide our high-level professional opinion/s on the Baseline Geotechnical Assessment Report with a focus on the proposed options to assist HCC to make an informed decision to facilitate the resource consent outcome and conditions.

To assist with the peer review, ABuild also undertook a site walkover with Paul Herbert of Winstone Aggregate (including portions of the proposed Overburden Deposal Area – ODA) on Tuesday June 16, 2026.

3.0 PEER REVIEW COMMENTS / RECOMMENDATIONS

The following are a series of points which ABuild would like to discuss within the pending Teams call / meeting with the report author (all items are up for discussion and in draft):

I.Overburden Disposal Areas Design Criteria

Based on our review, we understand that an IL1 design classification (Importance Level) with a 100-year return period (Design Life) has been adopted for the ODA.

While this may be appropriate, please provide justification demonstrating that any potential failure of the ODA will not adversely affect any infrastructure or life safety requirement with a higher design classification (e.g., IL2, NZ Building Code importance-level system is based on risk to human life, environmental impact, economic cost and other risk factors). This comment is particularly relevant to the portion of the disposal area located immediately adjacent to the proposed quarry excavation extension.

In practical terms, the assessment should consider the worst-case quarry benching configuration and worst-case ODA profile (during or after construction over the lifetime of the consent) to establish the maximum credible failure run-out extent and evaluate the criticality of any infrastructure or operational assets that may be impacted within this area.

In addition, please consider amplification of seismic loads that may be applicable to the analyses.

II.Chartered Professional Engineer Certification

Council should confirm whether the documentation is required to be reviewed and/or endorsed by a Chartered Professional Engineer (CPEng) with relevant experience in the applicable practice area. The current submission has been prepared by a Chartered Professional Engineering Geologist, and clarification is sought as to whether this level of professional input is considered sufficient for the nature and scope of the proposed works.

III.Extent and Scope of Ground Investigation

The current proposal relies on a series of shallow subsurface investigations comprising hand augers and Scala penetrometer testing.

Given the scale and significance of the proposed ODA, we would typically expect the geotechnical investigation to include a programme of machine-drilled boreholes to better characterise the subsurface conditions.

We acknowledge that access constraints may currently limit the ability to undertake borehole investigations in certain areas, and additional investigation could potentially be addressed through a consent condition.

However, as a minimum, we consider it prudent that a borehole be completed at the crest of the existing quarry excavation, or alternatively at the toe of the proposed embankment adjacent to the quarry face, to provide greater confidence in the ground model and associated stability assessments.

IV.Slope Stability Analysis and Selection/Verification of Design Parameters

The current slope stability analyses, in our opinion, should be supplemented by an additional analysis undertaken along a section running directly down the face of the existing quarry.

This is not intended as a validation of the stability of the existing quarry bench face/s (existing or proposed) as this is outside the scope of the review; however, it is considered a critical assessment in evaluating the stability of the proposed overburden disposal area and its interaction with the adjacent existing / proposed quarry face/s.

MBIE/NZGS Module 6 guidance should be considered in the seismic assessment, including the potential for topographic amplification effects to increase seismic loads acting on the proposed ODA and adjacent quarry slopes.

V.Embankment Slope Stability (adjacent to proposed quarry excavation)

Within the review documentation, it is unclear what specific subsoil drainage measures are proposed or required to be implemented. In addition, no explicit requirements have been provided regarding the incorporation of shear keys or basal undercuts at the toe of the proposed ODA embankments; inclusion of such details would provide greater clarity and confidence in the design approach.

Furthermore, the consequences of failure of the embankment immediately adjacent to the existing quarry face would be significant. Accordingly, consideration should be given to incorporating a buffer zone or rockfill buttress along the outer edge of the proposed embankment within the area.

In any case, supplementary slope stability analyses are required that explicitly account for the proposed drainage provisions, the potential inclusion of undercuts or shear keys, and the refined geometry and construction methodology of the embankments.

VI.Subsoil Liquefaction and Associated Slope Stability Analyses

As part of the slope stability analyses, the assumed groundwater conditions indicate a phreatic surface extending significantly into the proposed embankment. In addition, retained moisture within the deposited material would be substantial. A further consideration is the inclusion and distribution of fines disposal areas within the ODA, particularly in relation to the existing and proposed methodology for managing process plant water discharge and associated suspended solids and fines.

In light of the above, please provide supplementary liquefaction and updated slope stability analyses that appropriately reflect the adopted design criteria and adequately account for the stated groundwater conditions and material characteristics.

VII.Validation of Soil Strength Parameters During Construction

A programme of sampling should be undertaken during construction to validate the geotechnical parameters adopted. The design parameters should be subject to verification and, where necessary, revised based on the results of this testing.

This requirement should be documented within the Construction Management Plan (CMP) and Monitoring Plan (MP), including a clearly defined sampling methodology and an appropriate laboratory testing regime to confirm the adopted material properties and design assumptions.

4.0 CONCLUSION

ABuild Consulting Engineers Limited has undertaken a site walkover and peer review of the provided geotechnical report, *Baseline Geotechnical Limited's – Geotechnical Assessment Report dated 05 May 2026*.

The enclosed review comments and recommendations are intended as discussion points for the upcoming geotechnical meeting / Teams call to clarify each matter raised.

Following this discussion, it is anticipated that the comments will be updated, consolidated, or removed as appropriate in the final version of the document.

This report has been issued in draft form to allow flexibility for the applicant to provide clarification, with items to be amended or removed where considered appropriate.

Following our meeting ABuild will update the report and include a series of draft conditions for HCC's considerations.

On the understanding that the enclosed items will be updated, resolved, or included as conditions of consent, ABuild generally supports the processing of this consent based on the scope of our review.

5.0 DISCLAIMERS

This peer review letter report has been prepared by ABuild exclusively for Hutt City Council (HCC) in relation to HCC's request to undertake a peer review of the geotechnical report (Geotechnical Assessment Report prepared by Baseline Geotechnical Limited (Baseline) dated 05 May 2026), in accordance with the SFA between HCC and ABuild dated 14 May 2026 and the Engineering New Zealand Practice Note 2: Peer Review, version 2, April 2018.

ABuild accepts no liability whatsoever for any reliance on or use of this peer review report, in whole or in part, for any use or purpose other than that stated in the SFA or any use or reliance on the peer review report by any third party.

The peer review excludes an in-depth study of the site, completing site investigations or calculation verification.

If you have any further questions, please do not hesitate to contact the undersigned.

Yours faithfully

ABUILD™ Consulting Engineers Limited

Reviewed by:

Bruce Simms

Principal Geotechnical Engineer
BSc, MSc (Hons) and CMEngNZ / CPEng
255564

Shahin Ghanooni

Principal Geotechnical Engineer
BE(Hons), MSc, PhD, DIC, CPEng, RecEng
DSAP, PIC

Attachment:

Baseline Geotechnical Limited's – Geotechnical Assessment Report dated 05 May 2026.

Appendix B: OBDA Staged Development Plans

STAGE 1

STAGE 2

STAGE 3

STAGE 4

STAGE 5

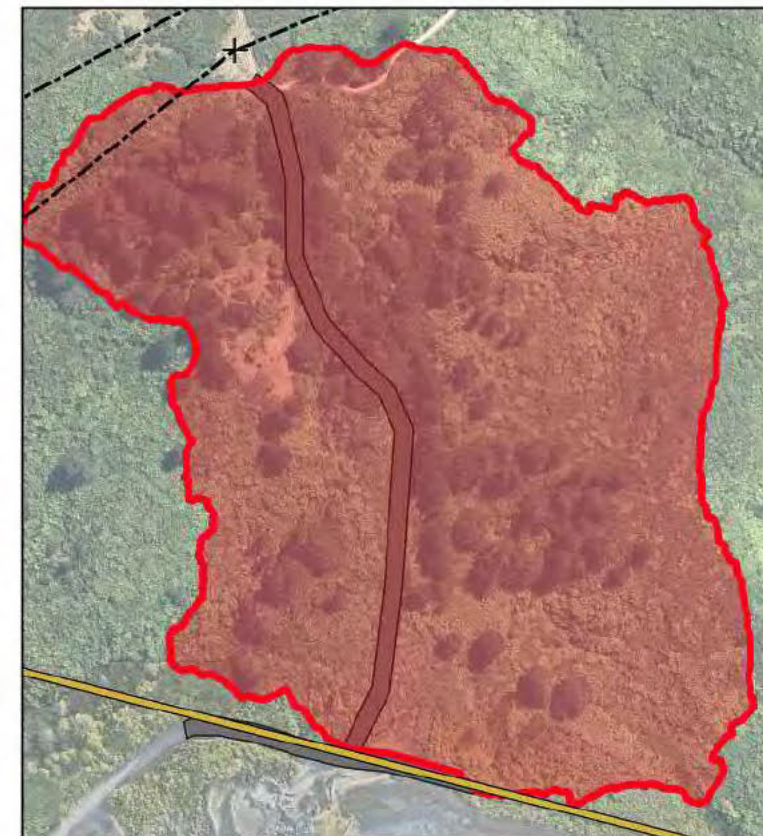
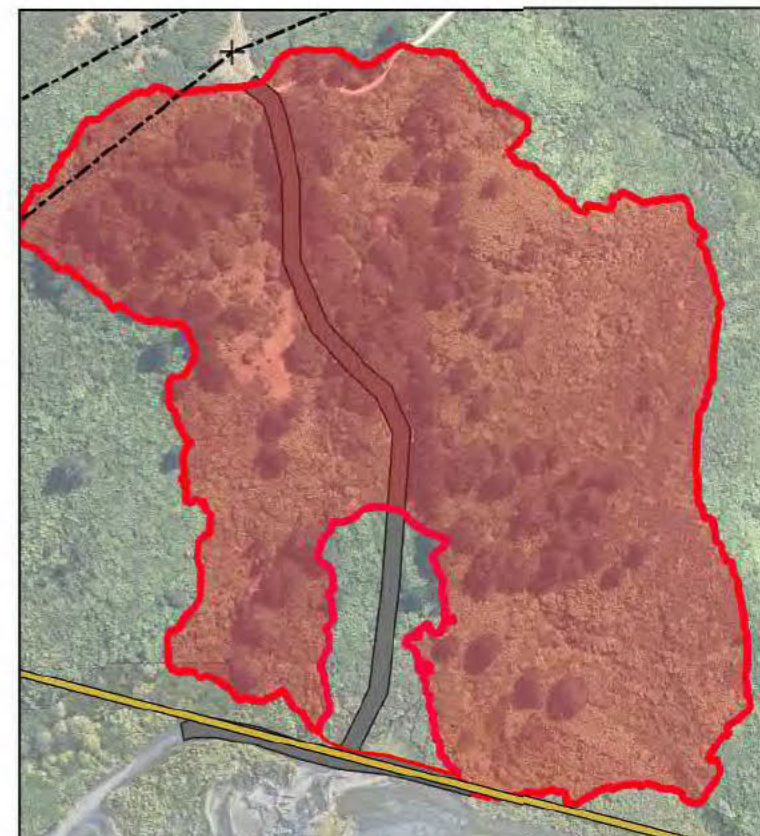
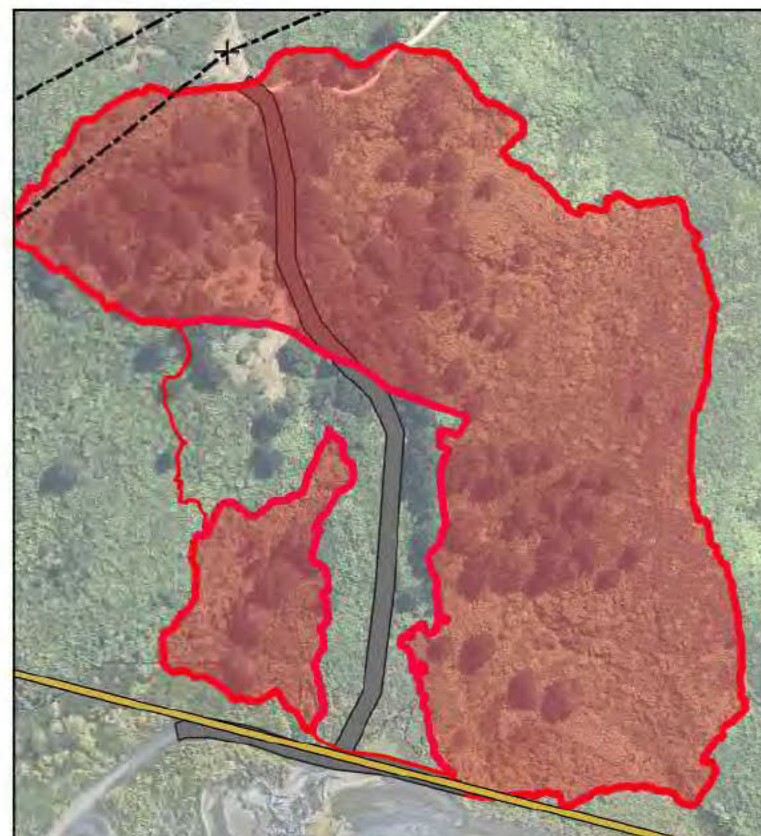
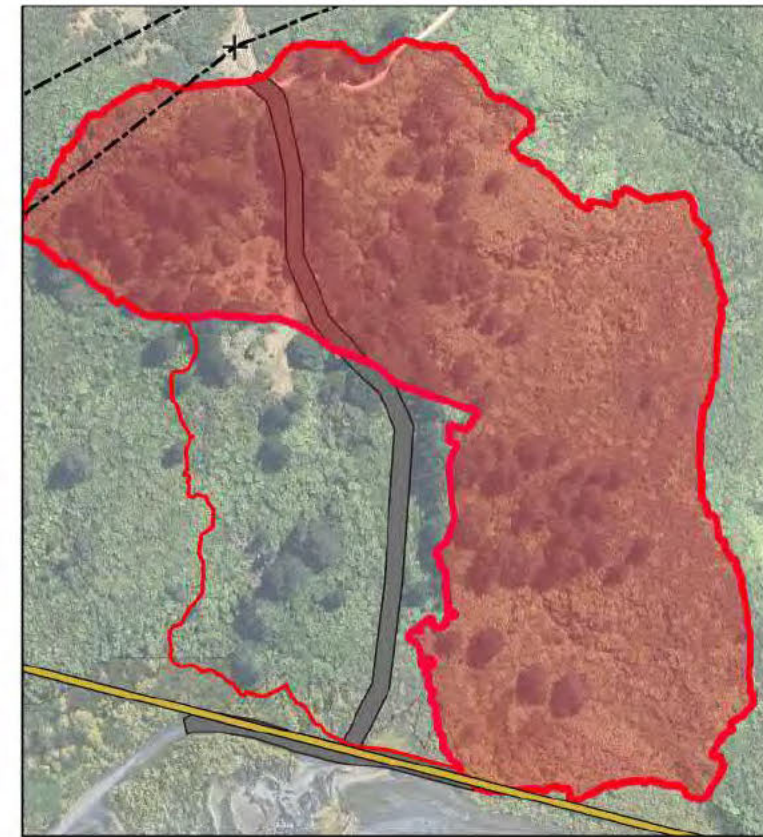
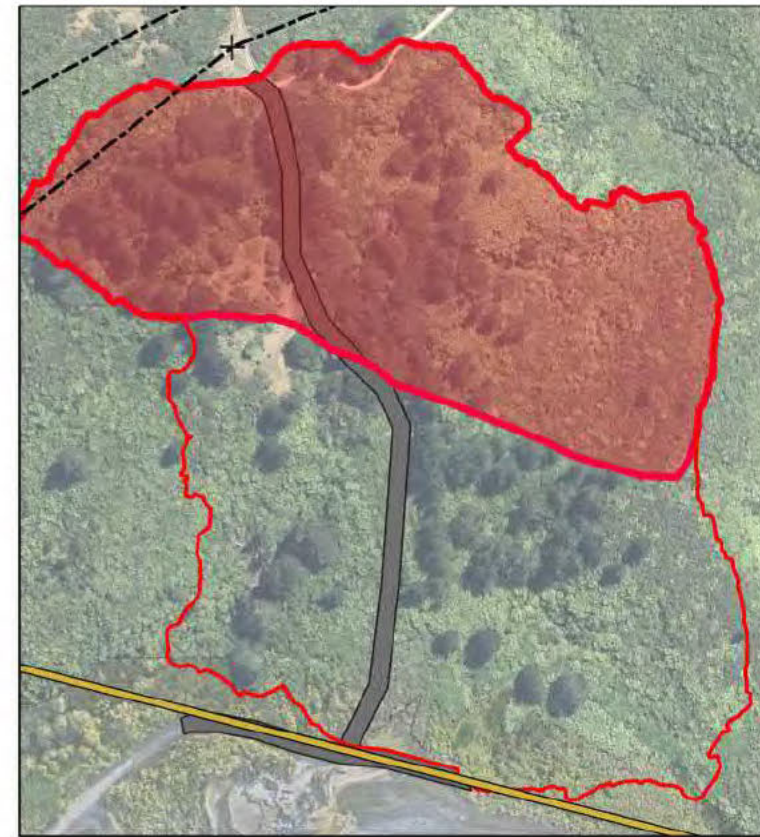
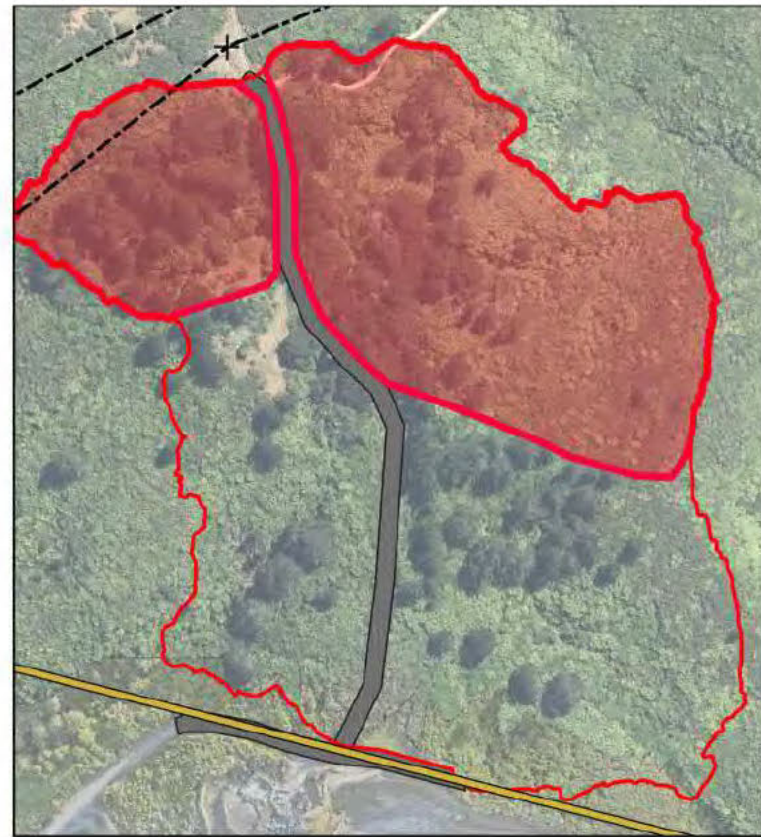
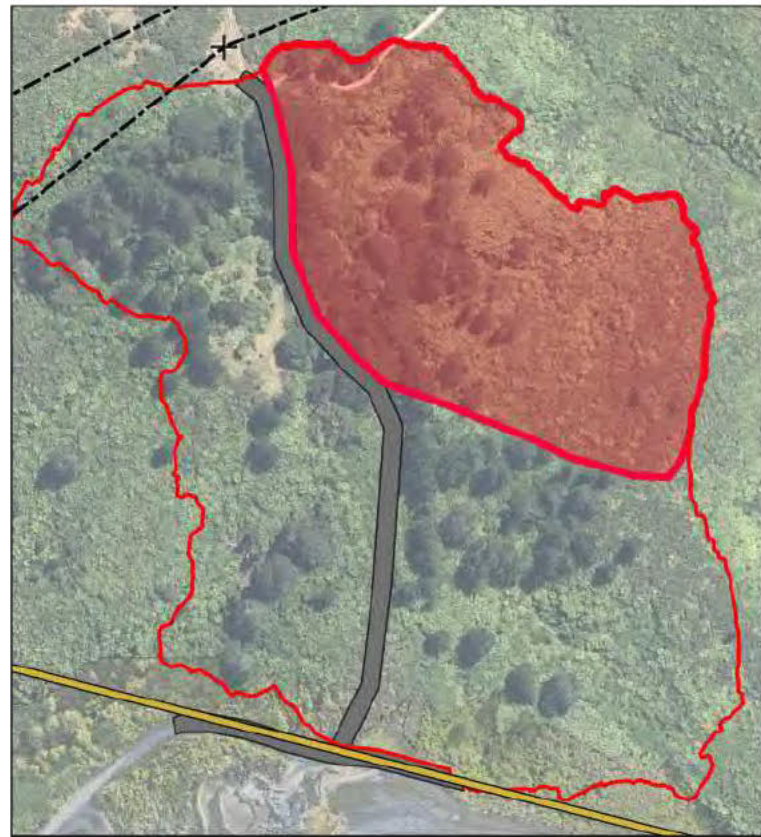
STAGES 6 and 7

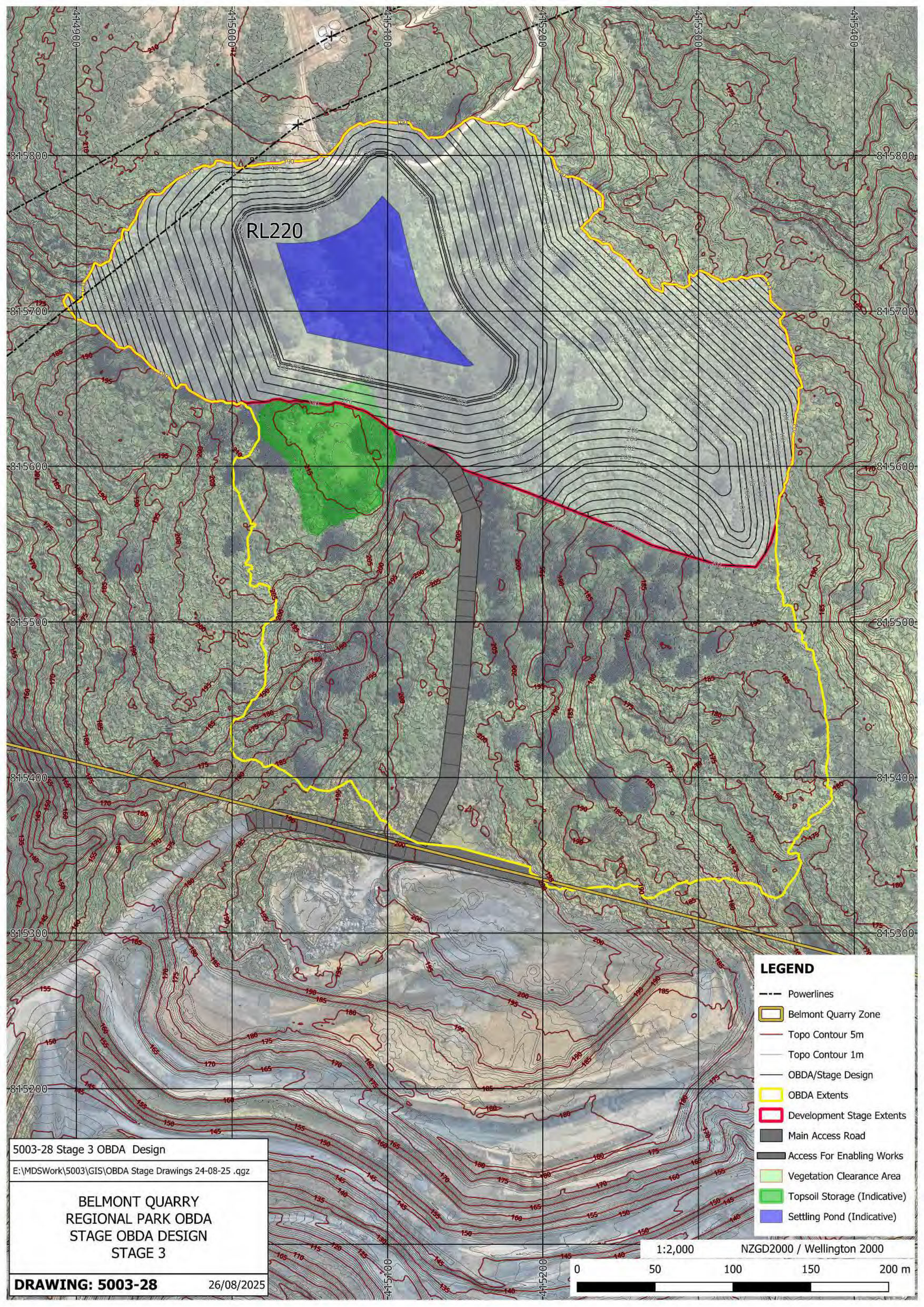
STAGES 8, 9 and 10

LEGEND

- Stage Footprint
- OBDA Extents

5003-21 Staged Development Footprints	
E:\MDSWork\5003\GIS\OBDA Stage Drawings 24-08-25 .qgz	
BELMONT QUARRY REGIONAL PARK OBDA STAGED DEVELOPMENT FOOTPRINT AREAS	
DRAWING: 5003-21	26/08/2025





5003-28 Stage 3 OBDA Design

E:\MDSWork\5003\GIS\OBDA Stage Drawings 24-08-25 .ggz

BELMONT QUARRY
REGIONAL PARK OBDA
STAGE OBDA DESIGN
STAGE 3

DRAWING: 5003-2826/08/2025

LEGEND

Powerlines

Belmont Quarry Zone

Topo Contour 5m

Topo Contour 1m

OBDA/Stage Design

OBDA Extents

Development Stage Extents

Main Access Road

Access For Enabling Works

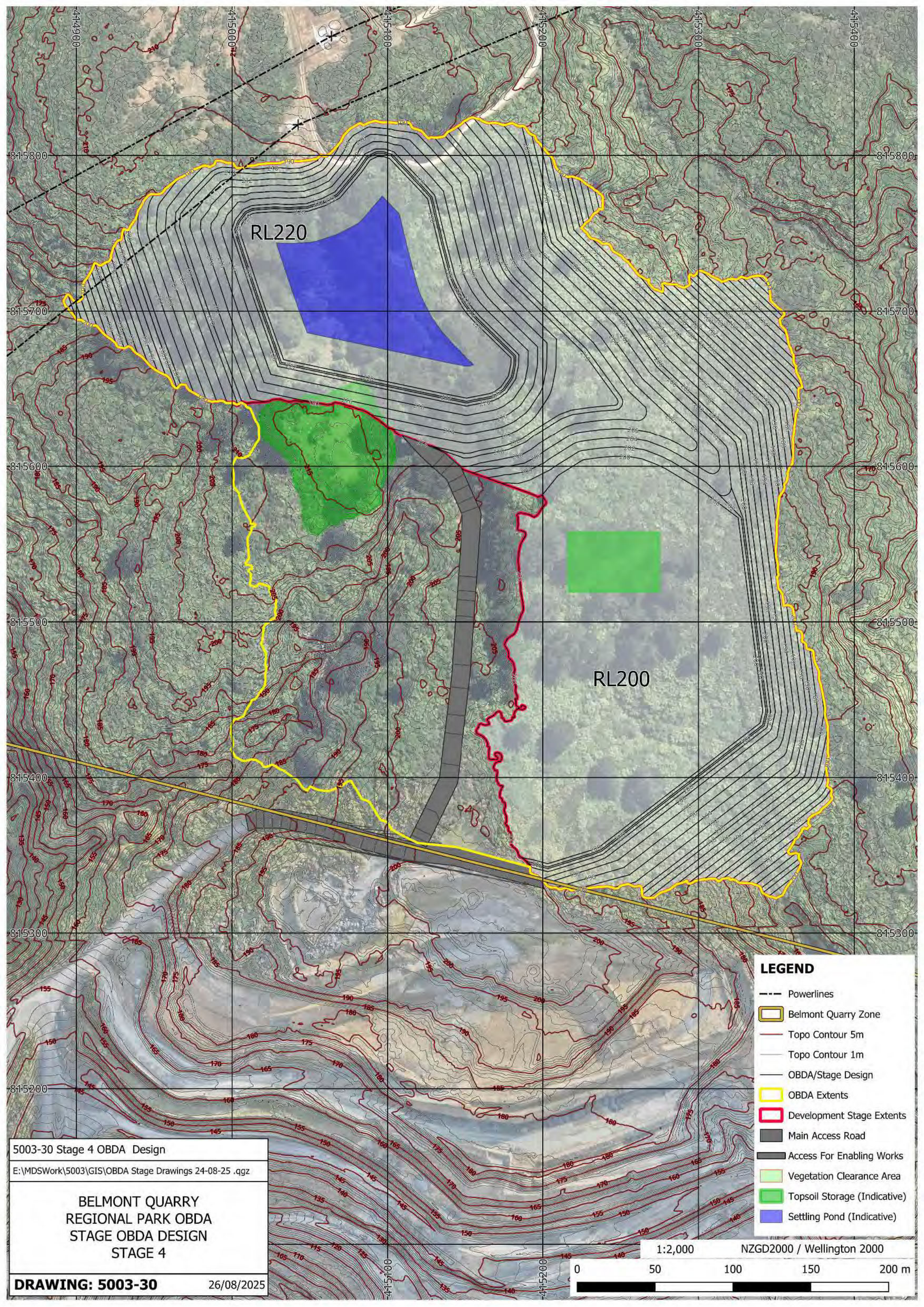
Vegetation Clearance Area

Topsoil Storage (Indicative)

Settling Pond (Indicative)

1:2,000NZGD2000 / Wellington 2000

050100150200 m



5003-30 Stage 4 OBDA Design

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BELMONT QUARRY
REGIONAL PARK OBDA
STAGE OBDA DESIGN
STAGE 4

DRAWING: 5003-3026/08/2025

LEGEND

Powerlines

Belmont Quarry Zone

Topo Contour 5m

Topo Contour 1m

OBDA/Stage Design

OBDA Extents

Development Stage Extents

Main Access Road

Access For Enabling Works

Vegetation Clearance Area

Topsoil Storage (Indicative)

Settling Pond (Indicative)

1:2,000NZGD2000 / Wellington 2000

050100150200 m



5003-39 Stage 10 OBDA Design

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BELMONT QUARRY
REGIONAL PARK OBDA
FINAL LANDFORM DESIGN
STAGE 10

DRAWING: 5003-39

26/08/2025

LEGEND

- Powerlines
- ▬ Belmont Quarry Zone
- Topo Contour 5m
- Topo Contour 1m
- OBDA/Stage Design
- ▬ OBDA Extents
- ▬ Development Stage Extents
- ▬ Main Access Road
- ▬ Access For Enabling Works
- ▬ Vegetation Clearance Area
- ▬ Topsoil Storage (Indicative)
- ▬ Settling Pond (Indicative)

0 50 100 150 200 m
1:2,000 NZGD2000 / Wellington 2000

1 July 2026

Jessica Glover
Kaitohutohu | Resource Advisor, Environmental Regulation
Greater Wellington Te Pane Matua Taiao

Email: [REDACTED]

Dear Jessica

Contaminated Land Review - Updated Pre-Application Documentation for Belmont Quarry Development

1.0 Introduction

AECOM New Zealand Limited (AECOM) was engaged by Greater Wellington Regional Council (GWRC) to undertake a technical peer review of pre-application documentation completed by Pattle Delamore Partners Limited (PDP) on behalf of Winstones Aggregates Limited (Winstones) for the proposed development of a new Overburden Disposal Area (OBDA) at Belmont Quarry (the Project). The technical peer review is documented in the AECOM letter dated 5 May 2026 and entitled *Contaminated Land Review – Pre Application Documentation for Belmont Quarry*.

Based on the AECOM review, PDP have provided the following updated pre-application documentation:

- *Preliminary and Detailed Site Investigation – Belmont Quarry – Proposed Overburden Disposal Area*, letter report prepared by PDP for Winstones dated 3 June 2026 (the PSI/DSI).
- *Remedial Action Plan – Proposed Overburden Disposal Area, Rev 3*, prepared by PDP for Winstones dated June 2026 (the RAP).

This letter documents the review that has been completed by AECOM on behalf of GWRC to assess whether the updated PDP reports have satisfactorily addressed the comments within initial AECOM letter dated 5 May 2026. It provides a review of the reports in relation to the Ministry for the Environment (MfE). *Contaminated Land Management Guidelines No 1: Reporting on Contaminated Sites in New Zealand*, Revised 2021 (CLMG 1).

2.0 Document Review

2.1 Preliminary and Detailed Site Investigation – Belmont Quarry – Proposed Overburden Disposal Area

It is noted that Table 3: Soil Sampling Rationale Summary has now been included within the combined PSI/DSI. This indicates that a second piece of abandoned machinery was unable to be sampled and that additional sampling will be undertaken during remedial works at the site to determine analytical concentrations. It is recommended that this statement is incorporated into the conclusion of the combined PSI/DSI report so that it is not missed at a later date.

Other than the above, AECOM consider that the updated combined PSI/DSI has satisfactorily addressed our comments within our letter dated 5 May 2026 and meets the requirements of CLMG No 1.

2.2 Remedial Action Plan – Proposed Overburden Disposal Area

The updated RAP indicates “the objective of the remedial works is to remove zinc-contaminated soil from the “hotspots” associated with degrading corrugated metal sheets at SS03, SS04, SS05 and SS08 the abandoned farm machinery at SS06, and any other waste, metal/machinery identified during the site redevelopment”.

Other than noting “any other waste, metal/machinery identified during site redevelopment”; the RAP is essentially silent on the second piece of abandoned machinery that was not sampled as part of the DSI. Figure 1 does not show this as being an indicative remedial area. It is recommended that the

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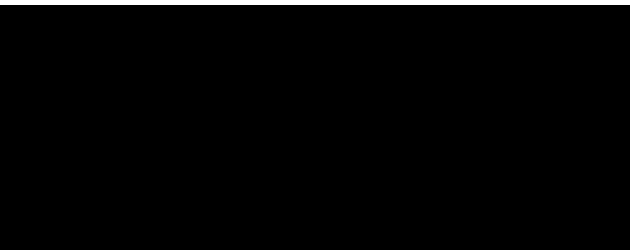
RAP is updated so that it is clear that this second piece of abandoned machinery will be sampled and remediated (if required) as part of remediation works.

Other than the above, AECOM consider that the updated RAP has satisfactorily addressed our comments within our letter dated 5 May 2026 and meets the requirements of CLMG No 1.

3.0 Closure

Other than some minor updates to include reference to sampling of the second piece of abandoned machinery that was unable to be sampled as part of the initial DSI, AECOM consider that the updated PSI/DSI and RAP has satisfactorily addressed our comments from our letter dated 5 May 2026 and meets the requirements of CLMG 1 and MfE (2021) *Contaminated Land Management Guidelines No. 5: Site Investigation and Analysis of Soils* (CLMG 5).

Yours faithfully



Suzanne Lowe
Associate Director - Environment



Mobile: 

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Remedial Action Plan – Proposed Overburden Disposal Area

✦ Prepared for

Winstone Aggregates Limited

✦ June 2026



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Quality Control Sheet

TITLE Remedial Action Plan – Proposed Overburden Disposal Area

CLIENT Winstone Aggregates Limited

ISSUE DATE 3 June 2026

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1	16/04/2026	Final	Jess Campbell Bailey Johnson	Melody Robyns	Hamish Wilson
2	13/05/2026	Revised draft for client review	Jess Campbell Bailey Johnson	Melody Robyns	Hamish Wilson
3	03/06/26	Final	Jess Campbell Bailey Johnson	Melody Robyns	Hamish Wilson

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Approved by

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Hamish Wilson

Limitations:

This report has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Winstone Aggregates Limited. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the report. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This report has been prepared by PDP on the specific instructions of Winstone Aggregates Limited for the limited purposes described in the report. PDP accepts no liability if the report is used for a different purpose. Any such use or reliance will be solely at their own risk.

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1.0 Introduction

Pattle Delamore Partners Limited (PDP) have been engaged by Winstone Aggregates Limited (Winstone; the client) to produce a '*Remedial Action Plan*' (RAP) for the disturbance, handling and disposal of soil in the proposed overburden disposal area (OBDA), Belmont Quarry (the Site – as shown in Figure 1 attached in Appendix A).

Given that the current OBDA is projected to meet capacity within the next 10 years, a new OBDA is proposed immediately to the north of Belmont Quarry. The proposed OBDA will be constructed across 10 stages and will accommodate approximately 2.8 million m³ of overburden including topsoil, subsoil, weathered greywackes and process and pond fines over a 35-year period.

This RAP has been prepared alongside a preliminary/detailed site investigation (PSI/DSI; PDP, 2026) report produced as an aspect of the Belmont Quarry Development Fast-Track Approval Application (FAA). The PSI/DSI should be read in conjunction with this document.

This RAP (dated May 2026; Version 3) has been updated to address council comments and therefore supersedes the previous versions.

This report has been written in general accordance with the Ministry for the Environment (MfE) Contaminated Land Management Guideline (CLMG) No. 1 – *Reporting on Contaminated Sites in New Zealand* (MfE, 2021).

1.1 Objectives

The objectives of the RAP are to set out the practices and procedures to be undertaken during earthworks in order to avoid, remedy or mitigate the risk to human health (i.e. site workers) and the environment. This RAP has been prepared to address the contaminated soils that have been encountered during intrusive investigations undertaken at the site, and to provide guidance on how these soils should be managed, along with any unexpected discoveries of contamination during the development works.

This RAP is intended for use by contractors and the environmental consultant engaged in the remedial works. It summarises the nature and extent of existing contamination, outlines procedures for the safe handling, removal, and disposal of contaminated soils, and specifies validation sampling and record-keeping requirements. This RAP should be read in conjunction with the site-specific Erosion and Sediment Control Plan prepared for the development of the OBDA.

2.0 Site Description and Background

The site is located across a 23.86 ha, irregularly shaped area, which extends across three parcels of land legally described as Part Section 200A Hutt DIST, Section 255 Hutt DIST and Part Section Hutt DIST. The site is currently owned by the Department of Conservation (DOC), forms part of Belmont Regional Park and is zoned as Recreation Reserve under Hutt City Council's (HCC's) District Plan.

The site is covered in medium to dense vegetation with an access track through the centre. During the site walkover, evidence of previous a historical dwelling and abandoned farming equipment was observed to the central/eastern portion of the site.

2.1 Summary of Site History

PDP was engaged by Winstone to undertake a PSI/DSI for the proposed OBDA at Belmont Quarry. Key findings of the investigation are summarised as follows:

- ∴ A review of historical information indicates that the site was historically used for farming purposes, with two small buildings present between 1942 and 1966, followed by progressive revegetation. A transmission pylon had been present on the northern part of the site since at least 1957.
- ∴ A site walkover identified discarded, degrading sheet metal and abandoned farm machinery at several locations and as such an intrusive investigation was undertaken to assess potential impacts of leaching of heavy metals and the presence of asbestos in the shallow surface soils. The intrusive investigation identified the following:
 - Laboratory results indicate that arsenic, chromium, copper, lead and nickel concentrations across the site are generally consistent across sample locations.
 - Elevated zinc and cadmium concentrations were identified in shallow surface soils in the vicinity of exposed metal sheeting, roof structures and machinery. Limited soil sampling indicates that zinc and cadmium concentrations generally decrease with depth and lateral spread, indicating limited migration. Additional soil sampling will be undertaken during the remedial works to confirm this.
 - Asbestos was not detected in any soil or bulk material samples analysed. In addition, asbestos was not observed onsite at any of the investigation locations, the site surface or any of the building materials remaining onsite.
 - All soil samples complied with applicable human health soil contaminant standards for commercial/industrial land use, and as

such soils are not considered to pose an unacceptable risk to human health, including for short-term exposure of OBDA workers.

- The results of the intrusive investigation indicated that zinc concentrations around the degraded metal may pose a risk to the environment particularly the ephemeral streams located within the site boundary (see Figure 1 for locations) and as such meet the threshold for Hazardous and Industrial List (HAIL)¹ category I.

3.0 Proposed Remediation

Based on the laboratory results of the PSI/DSI (PDP, 2026), the objective of the remedial works is to remove zinc-contaminated soil from the “hotspots” associated with degrading corrugated metal sheets at SS03, SS04, SS05 and SS08, the abandoned farm machinery at SS06, and any other waste metal/machinery identified during the site redevelopment. The locations of the corrugated metal sheets and abandoned farm machinery identified during the PSI/DSI are shown in Figure 1, Appendix A. Photographs provided in Appendix B.

To remove the contamination associated with the “hotspots” a minimum two-metre buffer will be placed around the source material, with a three-metre around SS08, and soils will be excavated to a minimum depth of 0.5 m below ground level (bgl) within these areas. Excavated soils will then be removed from site and disposed of to a Class A landfill facility. Removing the top 0.5 m of soil (as a minimum) aims to remove the “hotspots”, therefore reducing the environmental risk by removing the source material. Field screening using a portable XRF analyser and laboratory analysis will be undertaken at the base and sides of each excavation to confirm that the impacted soil has been removed. The scale of laboratory analysis, including the analytical suite and the number of samples, is to be determined at the time of excavation, and is further detailed in Section 9.0.

In order to assess the suitability of site soils to remain onsite, the laboratory analysis and XRF results will be compared to the following target remediation criteria which are based on applicable human health and environmental criteria for the site:

- ✧ The soil contaminant standards (SCS) contained in MfE’s Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health (2011b) for all heavy metals analysed, with the exception of nickel and zinc. For nickel and zinc, results will be compared to soil guidelines

¹ The Hazardous Activities and Industries List (HAIL) is a compilation of activities and industries that are considered likely to cause land contamination resulting from hazardous substance use, storage or disposal. The HAIL is intended to identify most situations in New Zealand where hazardous substances could cause, and in many cases have caused, land contamination.

values (SGV) contained in the Australian National Environmental Protection (Assessment of Site Contamination) Amendment Measure 2013 (NEPM, 2013) criteria. Samples will be compared to the values associated with commercial/industrial land use.

- ✧ To assess environmental risk, soils will be compared to the Class 3 waste acceptance criteria (WAC) published in Technical Guidelines for Disposal to Land (WasteMINZ, 2023).

These measures will also apply to any new discoveries of degrading metal identified throughout the site redevelopment.

Excavations will be undertaken in accordance with the management controls detailed in this document.

4.0 Roles and Responsibilities

4.1 Role of Landowner (Winstone Aggregates Limited)

Winstone will be the landowner of the site and is responsible for implementing the requirements of this RAP in relation to the development activities at the site. Winstone must distribute this RAP and communicate the known extent of residual contamination and associated hazards to workers and contractors conducting work at the site.

4.2 Role of the Site Manager

Winstone shall nominate a Site Manager to be responsible for providing general oversight for the entire project and is the link between the contractor, the nominated Suitably Qualified and Experienced Practitioner (SQEP) and the Winstone. It is the Site Managers responsibility to ensure site works are undertaken in accordance with the Resource Consent.

The site manager will ensure that site personnel and other relevant engaged parties working at the site adhere to requirements of the RAP. This includes:

- ✧ The implementation, management and monitoring of the erosion and sediment control systems.
- ✧ The management and disposal of surplus materials disturbed, including any unexpected, contaminated soil identified/encountered during the works.
- ✧ Monitoring and record keeping throughout the duration of the works.
- ✧ Implementing spill response procedures in the event of a spillage of hazardous substances.

4.3 Role of SQEP (Pattle Delamore Partners)

The PDP representative identified in Table 1 is the nominated Contaminated Land Consultant who is the SQEP and is the first point of call in the event that visual or olfactory evidence of contamination is encountered and/or previously unidentified sources of soil contamination are identified during the works.

The SQEP can also assist with identifying appropriate facilities for disposal of contaminated material from the site.

4.4 Key Contacts

The key project contacts are outlined below:

Table 1: Key Contacts		
Contact	Name	Contact Details
Landowner	Winstone Aggregates Limited	Shalini Sanjeshni
Site Manager	TBC	TBC
Contractor	TBC	TBC
Contaminated Land Consultant/SQEP	Melody Robyns – Pattle Delamore Partners Limited	[REDACTED] [REDACTED]
Contaminated Land – Technical Director/ SQEP	Hamish Wilson – Pattle Delamore Partners Limited	[REDACTED] [REDACTED]
Hutt City Council	General Enquiries	04 570 6666
Greater Wellington Regional Council	Environmental and Pollution	0800 496 734
	Discovery of Artefacts	notifications@gw.govt.nz

4.5 Distribution

A copy of this RAP shall be kept onsite at all times. It is the responsibility of the site manager to distribute the information contained within this RAP to any workers, subcontractors and personnel entering the site to ensure compliance. The provision of this RAP is mandatory to all persons (workers, contractors, subcontractors and visitors) who enter the site during the construction works.

4.6 Implementation

It is the responsibility of the site manager and any workers, contractors, subcontractors and visitors (as applicable) to adhere to the requirements of the RAP and ensure compliance.

The site manager shall liaise with the contaminated land consultant/SQEP to ensure that the work is being carried out in accordance with the RAP, organise site inspections required in accordance with the RAP and discuss any contaminated land issues or any sampling requirements during the construction activities, including any unexpected discoveries.

4.7 Review and Update

This RAP must be reviewed and amended as necessary. This could be in response to changes to the proposed OBDA construction methodology, findings of additional investigations, and/or during future earthworks at the site to ensure the environmental and human health risks associated with the identified contaminants at the site are managed appropriately.

Any update or amendment to the RAP is to be approved by the contaminated land consultant/SQEP prior to implementation of the change. It is the responsibility of the landowner to issue the updated RAP to the site manager as it is made available.

If updated, old versions of the RAP should not be referred to and should be deleted from, or archived in, computer systems with physical copies marked as “superseded” or disposed of.

5.0 Current Identified Risk to Site Workers and Environment

A risk (e.g. to human health and/or the environment) can only arise if there is a hazard (e.g. contaminated soil), a receptor (e.g. people) and an exposure pathway between the hazard and the receptor.

As outlined in the PSI/DSI, the key contaminants of concern identified in the PSI/DSI (PDP, 2026) are heavy metals (zinc and cadmium) which may have an adverse effect on the receiving environmental (the ephemeral streams located onsite) through infiltration to groundwater and/or surface water run-off. No risk to human health was identified.

Although no asbestos was encountered during the investigation, not all parts of the site were accessible and given the age of the historical structures on site the presence of asbestos cannot be ruled out.

6.0 Management Procedures

This section details precautions which must be undertaken whilst working on the site to mitigate potential risks to human health and the environment. The health and safety procedures and measures outlined in the RAP should be incorporated into the overarching, site specific Health and Safety Plan.

6.1 Site Controls

This section sets out general management procedures and requirements for the site.

1. This plan applies to the proposed OBDA, specifically the areas identified in Figure 1 where impacted soils were detected.
2. All personnel involved in the excavation works are to be familiar with this plan and must ensure that the requirements of this plan have been followed.
3. A copy of this plan is to remain available at the site office at all times so that reference can be made to the plan when undertaking any excavations works within the site.
4. Overall responsibility for the implementation of this plan shall be held by Winstone Aggregates Limited. However, the specific requirements and provisions of the management plan will be under the control of the Site Manager (see Section 4.2).
5. This plan relates solely to potential soil contamination within the proposed OBDA associated with degrading metal debris. Should impacts from other contaminants be discovered during works, a SQEP should assess the requirement for any additional investigation and/or management controls.

The RAP is limited to assisting Winstone and its agents and contractors in meeting their legal obligations with respect to health, safety and the environment in dealing with potentially contaminated soil within the proposed OBDA. It is not intended to cover the general safety procedures required for typical excavation and redevelopment works. The RAP is not intended to relieve the owner of their legal responsibilities.

6.2 Health and Safety

The Contractor shall mobilise to site with all the necessary equipment to undertake the redevelopment works (including the remediation of any potential contaminated soils as identified in the PSI/DSI) in a safe manner and in compliance with the controls detailed in this RAP.

Under the *Health and Safety at Work Act* (HSWA, 2015), the Contractor must undertake the works in accordance with the relevant health and safety

regulations and meet all their obligations as a '*person in control of a business or undertaking*' (PCBU). The main potential hazards associated with the soil disturbance works are expected to be personal physical injury, and site worker human health exposure to surface soil contaminants.

6.2.1 PPE Requirements

The Contractor shall ensure that during soil disturbance works across the site, all personnel are wearing standard personal protective equipment (PPE). The minimum PPE shall include:

- ✧ Sturdy steel cap footwear (not exposed steel cap),
- ✧ Full coverage overalls/clothing,
- ✧ Safety glasses, and
- ✧ Hard hats (when earthmoving equipment is present).

In addition, during the removal of the contaminated soils at the site, the contractors must wear nitrile gloves and maintain strong hygiene controls (as outlined in the following section). The use of dust masks may be required if there is potential for the dust generation and inhalation of contaminated dust during the remedial works.

6.2.2 Personal Hygiene

All personnel working on the site should:

- ✧ Avoid skin contact with contaminated soil.
- ✧ Not consume food or beverages anywhere near excavated soil.
- ✧ Always wash their hands before smoking/vaping or eating, and do not touch their face after handling contaminated soil.

7.0 Earthwork Controls

The following section provides details for controls that are to be followed for general earthworks across the wider site.

7.1 Erosion and Sediment Control

It is understood that site specific erosion and sediment control (ESC) measures are to be implemented and will be provided in a separate document. These measures should be in accordance with GWRC's *Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region* (GWRC, 2021).

The Site Manager will be responsible for undertaking periodic inspections / maintenance of the ESC measures throughout the soil disturbance works.

7.2 Dust Suppression

Exposed earthwork areas shall be maintained to minimise the release of dust into the atmosphere, and appropriate measures to reduce the dust release to acceptable levels must be implemented as required. Appropriate dust control measures include the following:

- ✧ All site workers will be advised of the need to minimise dust by the responsible operation of machinery and vehicles (e.g. limit site traffic speed to reduce the production of dust, access into/out of the site to be via the stabilised surfaces).
- ✧ Exposed areas will be minimised as far as practicable.
- ✧ Water sprays will be used on exposed soils to suppress dust, ensuring that any water used is not allowed to migrate beyond the work zone, and
- ✧ Dust generating activities will be limited or suspended during periods of high wind.

7.3 Stockpile Management

Stockpiling of zinc contaminated soils should be avoided where possible, if temporary stockpiling (of potential or confirmed contamination) is required then the stockpiles shall be managed as follows:

- ✧ All stockpiles of zinc contaminated material shall be located within the site boundary and monitored for dust generation;
- ✧ Silt socks shall be installed around stockpiles where required to ensure sediment laden stormwater from the stockpile cannot enter surface water;
- ✧ Controls shall be installed to prevent runoff from leaving the area and stormwater from other areas entering the stockpile area;
- ✧ Given the nature of the site, placing soils on polythene is likely not feasible. If soils cannot be placed on polythene sheeting, when removed the surface soils beneath the stockpile will be excavated 100 mm bgl to remove any potential contamination of the underlying material;
- ✧ Be covered or dampened during dry and windy conditions; and
- ✧ If significant rainfall is forecast, the stockpiles shall be covered by a suitable material to prevent contaminated stormwater discharge.

Any material removed during the works that is potentially or confirmed as contaminated shall be disposed of at a facility authorised indicated as appropriate by the SQEP to receive such material.

8.0 Soil Management Controls

8.1 Soil Reuse

Areas shown in Figure 1 are to be excavated and removed from site due to elevated zinc concentrations and the associated environmental risk.

All remaining sampled soil that did not report elevated zinc concentrations are suitable for reuse at the site.

8.2 Soil Disposal

The PSI/DSI concluded that impacted soils, present in the vicinity of the discarded metal sheeting and historical building, are suitable for disposal at a Class A landfill facility. The Site Manager should liaise with the SQEP regarding the intended soil disposal locations, to ensure compliance against the applicable waste acceptance criteria is maintained.

The conceptual site model for the remaining soils at the site does not identify potential sources of contamination. As the primary land use of the site has historically been for pastoral purposes, it is likely that these soils meet the definition of cleanfill. However, should this material require offsite disposal landfill facilities may require additional testing to confirm acceptability of the material. The acceptance criteria for cleanfill facilities within Wellington varies across the region and therefore comparison to any specific cleanfill criteria has not been undertaken and will be required on a case by case basis depending on the location of the cleanfill site. It is recommended that preapproval be obtained for soil disposal prior to the onset of any soil disposal works.

Documentation showing the landfill acceptance of all soil at the site shall be provided to the SQEP along with disposal certificates/dockets.

8.3 Soil Sampling Requirements

Soil sampling may be required for the additional characterisation of soils to assist with off-site disposal options. The following soil sampling procedures shall be implemented:

- ✧ The contaminated land consultant/SQEP will determine the number and density of samples collected, dependent on the objectives of the sampling.
- ✧ All sampling will be overseen by a contaminated land consultant/SQEP.
- ✧ The samples will be collected using a fresh pair of nitrile gloves for each sample.
- ✧ To avoid cross-contamination between samples, any hand-held sampling equipment will be decontaminated between sampling locations using Decon90 and water.

- ✧ Soil samples will be placed into laboratory supplied containers. The samples will be submitted to an accredited laboratory under chain of custody documentation.
- ✧ Upon receipt of the laboratory analysis, the contaminated land consultant/SQEP shall assess the results to determine the fate of the characterised material.

8.4 Contaminated Soil Handling Measures

Contaminated soil shall be loaded directly into covered and water-tight trucks for off-site disposal to an approved facility. Trucks and other contractor vehicles shall not drive across the contaminated area prior to or during the removal of the contaminated soils and should remain on stabilised areas wherever possible. Truck wheels shall be inspected and cleaned (via manual sweeping) as necessary prior to egress from the site to prevent tracking of soil onto public roads.

8.5 Record Keeping

The Site Manager shall ensure that records are kept of all excavation, handling and disposal of soil at the site. This includes soil disposal dockets. Photographs and a detailed site plan showing the final extent and dimensions of the excavated areas, including after the removal of any identified contaminated soils is to be provided by the Contractor to the SQEP for verification and provided to the Site Manager for their records.

9.0 Validation Sampling

The limited soil sampling undertaken to date, combined with the observed source materials indicates that the heavy metal contamination is localised and will be removed through targeted excavation of identified “hotspot” areas. Sampling both through analytical analysis and field screening with a portable XRF analyser will be undertaken on the sides and bases of excavations during the remedial works to guide the remedial excavations and confirm that zinc, cadmium concentrations, and other metals as appropriate, comply with the applicable soil criteria and as such that the material remaining on site poses no environmental risk.

In order to assess the suitability of site soils to remain onsite, the laboratory analysis and XRF results will be compared to the following human health and environmental criteria:

- ✧ The soil contaminant standards (SCS) contained in MfE’s Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health (2011b) for all heavy metals analysed, with the exception of nickel and zinc. For nickel and zinc, results will be compared to soil guidelines values (SGV) contained in the Australian National Environmental

Protection (Assessment of Site Contamination) Amendment Measure 2013 (NEPM, 2013) criteria. Samples will be compared to the values associated with commercial/industrial land use.

- ✧ To assess environmental risk, soils will be compared to the Class 3 waste acceptance criteria (WAC) published in Technical Guidelines for Disposal to Land (WasteMINZ, 2023).

The number and depth of soil samples obtained will be decided based on the size of the excavation. Samples will be submitted to an accredited laboratory for the analysis of cadmium and zinc only. The results of these samples will be used to confirm the XRF results and to demonstrate that the remedial work has been effective.

Photographs of each excavated “hotspot” area shall be obtained, and the physical extents of the “hotspot” excavations shall be recorded.

Any remaining soils found to have elevated concentrations of zinc and cadmium (as applicable) after the excavation works will require excavation and further validation sampling undertaken.

A validation report will be prepared which will outline the remedial works which were undertaken and present the results of the validation sampling. The report format, interpretation of results and assessment will be in accordance with MfE (2021) guidelines for reporting on contaminated sites.

10.0 Complaints Procedures

The Site Manager shall have a procedure in place for recording and responding to any complaints resulting from the development operations. Contact details for the Site Manager shall be displayed on the noticeboard at the entrance of the site. The Site Manager shall advise the SQEP of any soil disturbance complaints received and the SQEP shall provide technical advice to the Site Manager on how to respond.

11.0 Unexpected Discovery Protocols

While the previous investigations have provided an indication of the types of contaminants that may be encountered during earthworks, it is recognised that during future earthworks relating to the construction of the OBDA of the site, contamination (other than that already identified) may be encountered. All site workers shall be aware of the procedures that must be followed in the event that unexpected contamination is discovered.

If additional metal sheeting or abandoned farm machinery is encountered during works, the affected area shall be delineated with a 2 m exclusion zone around the source material. All soils and materials within the delineated area shall be excavated to a minimum depth of 0.5 m below ground level (bgl) and disposed of

offsite. Further validation sampling shall be carried out to confirm the zinc and cadmium concentrations of the remaining material comply with the applicable soil criteria.

Additional typical indicators of contamination may include but not be limited to:

- ✧ Unusually stained or discoloured soils
- ✧ The presence of refuse or household rubbish
- ✧ Any unusual odours or vapours
- ✧ Asbestos-containing materials (e.g., construction debris and/or cement sheet fragments)
- ✧ Buried containers or drums

If visual or olfactory indicators of possible contamination are encountered, beyond that shown on Figure 1, then all works in the area shall cease immediately and the site manager must be contacted, and HCC notified. The area of concern must be fenced/barricaded/isolated and (as necessary) covered with a tarpaulin to prevent other site workers from entering the area.

The contaminated land consultant/SQEP shall be contacted to determine the appropriate course of action and the possible need for further investigation.

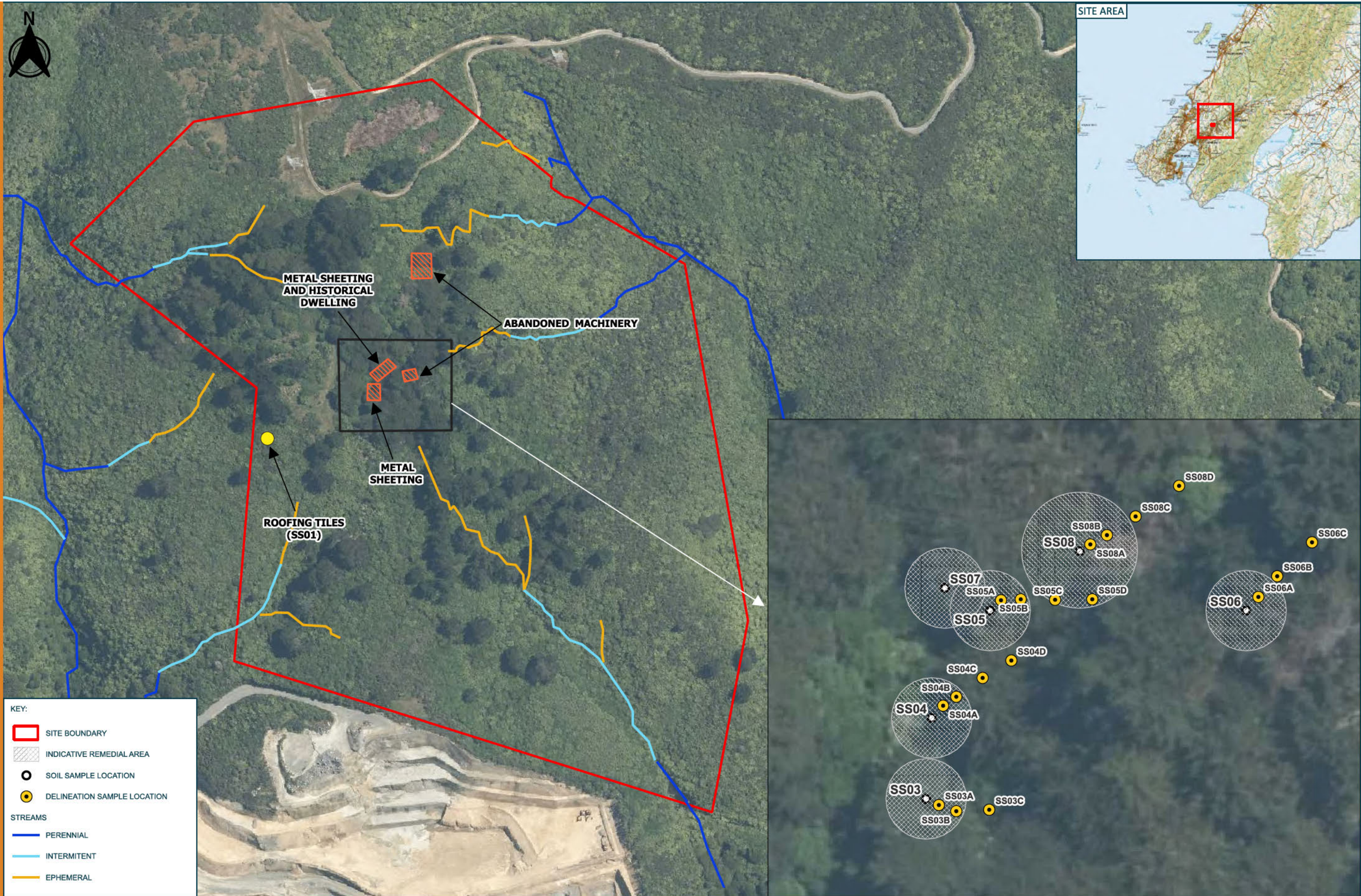
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SOURCE:

- AERIAL IMAGERY (FLOWN 2025) SOURCED FROM THE LINZ DATA SERVICE.
- INSET MAP DERIVED FROM THE LINZ DATA.
- SPATIAL FEATURES INDICATIVE AND MAY NOT BE SPATIALLY ACCURATE.

CLIENT

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AGGREGATES



Photograph 1: Example of sheeting which may be found.



Photograph 2: Example of roof structure.



Photograph 3: Example of covered metal which may be found.



Photograph 4: Example of machinery which may be found.



3 June 2026

Shalini Sanjeshni
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Dear Shalini,

PRELIMINARY AND DETAILED SITE INVESTIGATION - BELMONT QUARRY – PROPOSED OVERBURDEN DISPOSAL AREA

1.0 Introduction and Background

Winstone Aggregates Limited (Winstone; the client) owns and operates Belmont Quarry in Lower Hutt, Wellington. The quarry's current Overburden Disposal Area (OBDA) is projected to reach capacity within the next 10 years. As such, a new OBDA is proposed immediately north of the quarry. The proposed OBDA will be constructed across 10 stages and will accommodate approximately 2.8 million m³ of overburden including topsoil, subsoil, weathered greywackes and process and pond fines over a 35-year period.

Winstone has engaged Pattle Delamore Partners Limited (PDP) to undertake a preliminary and detailed site investigation (PSI/DSI) for the area of the proposed OBDA (the site) at Belmont Quarry, as shown in Figure 1, attached. The PSI has been produced in support of Winstone's substantive aspect of the Belmont Quarry Development Fast-Track Approval Application (FAA).

This version of the report (dated May 2026) supersedes the previously issued report.

The PSI/DSI has been directed and reviewed by a Suitably Qualified and Experienced Practitioner (SQEP) with respect to contaminated land and has been undertaken in accordance with the Ministry for the Environment's (MfE) *Contaminated Land Management Guidelines (CLMG) No. 1 – Guidelines for Reporting on contaminated Sites in New Zealand* (MfE, 2021a) and *CLMG No. 5 – Site Investigation and Analysis of Soils* (MfE, 2021b). A certifying statement to this effect is provided in Appendix A.

2.0 Objectives and Scope

The objectives of the PSI/DSI are to:

- ❖ Determine whether any Hazardous and Industrial List (HAIL)¹ or other potentially contaminating activities, either from historical or current activities, have been undertaken within the proposed OBDA;

¹ The Hazardous Activities and Industries List (HAIL) is a compilation of activities and industries that are considered likely to cause land contamination resulting from hazardous substance use, storage or disposal. The HAIL is intended to identify

- ✧ Conduct a preliminary assessment of the potential contaminated land risks of any identified HAIL activities;
- ✧ Assess, by means of soil sampling and analysis, for the presence of any residual contamination impacts to surface and near-surface soils from these current or historical activities;
- ✧ Assess the requirements/likelihood for potential consents in relation to the Resource Management (*National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*) Regulations 2011 (NESC) and the contaminated land rules within the Greater Wellington Regional Council's (GWRC's) *Natural Resources Plan* (NRP; 2023); and
- ✧ Provide recommendations for further investigations, if required.

The scope of work included:

- ✧ Obtaining and reviewing a selection of publicly available historical aerial imagery of the site;
- ✧ Reviewing GWRC Selected Land Use Register (SLUR) for the site;
- ✧ Viewing property files for the site held by the Hutt City Council (HCC);
- ✧ Reviewing publicly available geological and hydrogeological information for the site;
- ✧ Visiting the Belmont Quarry and Regional Park to undertake a site walkover;
- ✧ Initial soil sampling at ground surface level and 0.3 m below ground level (bgl) for heavy metals and semi-quantitative asbestos;
- ✧ Delineation (lateral and vertical) of elevated contaminants up to 0.5 m bgl;
- ✧ Comparison of the results against the relevant criteria;
- ✧ Assessing the requirements of the NESC and the contaminated land rules within the GWRC's NRP;
- ✧ Assessing whether any further investigation work is recommended to inform site management and/or consenting and/or soil disturbance requirements; and
- ✧ Preparation of this PSI/DSI report.

3.0 Property Description and Background

Belmont Quarry is located at 541 Hebden Crescent, Belmont, Wellington. The investigation is limited to the parcel of land directly adjacent to the northern boundary of Belmont Quarry referred to as the 'proposed OBDA' (the site), shown in Figure 1 (Appendix B).

The site is located across a 23.86 ha, irregularly shaped area, which extends across three parcels of land legally described as Part Section 200A Hutt DIST, Section 255 Hutt DIST and Part Section Hutt DIST. The site is currently owned by the Department of Conservation (DOC), forms part of Belmont Regional Park and is zoned as Recreation Reserve under HCC's District Plan.

Land use surrounding the site is as follows:

- ✧ North: Dense bush within Belmont Regional Park.
- ✧ East: Dense bush.
- ✧ South: Belmont Quarry.
- ✧ West: Dense bush within Belmont Regional Park and Belmont Quarry.

most situations in New Zealand where hazardous substances could cause, and in many cases have caused, land contamination.

4.0 Topography, Geology and Hydrology

The geological map of the region indicates that the site is underlain by undifferentiated Rakaia Terrane Triassic sandstone and mudstone². These comprise alternating sandstone and mudstone, poorly bedded sandstone with minor coloured mudstone, conglomerate, basalt and chert.

There are various small streams, likely ephemeral, flowing through the site in an easterly, southerly and westerly direction discharging into larger gullies located outside of the site boundary, which flow to the south-southeast towards the Hutt River. The stream locations are presented on Figure 1, provided in Appendix B. There are also several steep gullies throughout the site which are likely to contain ephemeral streams.

The Hutt River is located approximately 530 m to the southeast of the site. This flows in a south-westerly direction discharging into Wellington Harbour.

Groundwater beneath the site is inferred to flow in a southeastern direction towards the Hutt River. A review of the GWRC map viewer identified no groundwater bores within a 500 m radius of the site.

4.1 Sensitivity of the underlying aquifer

The sensitivity of the underlying aquifer was assessed in accordance with Section 5.2.3 of the MfE (2011c) guidelines:

- ✧ The shallow aquifer beneath the site is not artesian;
- ✧ The depth of the first water bearing unit is expected to be greater than 10 m below the potential contaminant source; and
- ✧ There are no records of shallow aquifer use within a 200 m radius of the site. Given the presence of reticulated water supply and GWRC bore information, future use of the shallow groundwater for water supply (potable) purposes is considered unlikely.

In accordance with the guidelines (MfE, 2011c) the shallow groundwater is not considered sensitive with respect to groundwater use.

In accordance with Section 5.2.3 of the MfE (2011c) guidelines, a surface water body may be considered to be sensitive if it is within 100 m of a contaminant source and if limited dilution is available to mitigate impacts of contaminated groundwater discharging to the water body. The nearest down-gradient surface water bodies are ephemeral streams, located within the site boundary. Given that the streams are ephemeral and shallow, shallow groundwater is not considered sensitive with respect to the migration of impacted groundwater away from the site.

5.0 Site History

The purpose of the information review is to establish past land uses at the property and therefore the potential for soil contamination to have arisen from those uses.

5.1 Historical Aerial Photographs

Five historical aerial photographs were obtained from Retrolens (dated between 1942 and 2000), and five aerial photographs were sourced from Google Earth Pro (dated between 2004 and 2024). The aerial photographs are provided in Appendix C. A summary is provided below.

² <https://data.gns.cri.nz/geology/> accessed 29/01/26

Table 1: Historical Aerial Photograph Review

Date	Description
1942	The site and surrounding area appear to be predominately grassed and in pastoral use. A small building and coppice of trees are visible in the western portion of the site. The site appears to be part of a wider farm, with an access track running from the site's northern boundary to farm buildings (including an animal race and associated buildings).
1957	Dense vegetation cover is present across most of the site. Three pylons are visible in the north-western, central and south-western areas of the site. No other significant changes were observed.
1966	Significant vegetation clearance has occurred in the eastern portion of the site. Sheep are visible across the site. The adjacent quarry (i.e. Belmont Quarry) to the south is now well established.
1984	The onsite structures are no longer present. No other significant changes were observed.
2000	The site is now covered in varying degrees of dense vegetation. There appears to be some minor ground disturbance on the site's south-western boundary associated with Belmont Quarry, which is well established to the south of the site. The two previously identified pylons located in the central and south-western areas of the site are no longer present.
2004	Increased ground disturbance associated with Belmont Quarry is visible in the south-western portion of the site. The access track to the north appears to be more defined. No other significant changes were observed.
2009	The minor ground disturbance previously observed has been revegetated. No other significant changes were observed.
2024	No significant changes observed from the 2009 aerial image.

5.2 Property Files

Property files for the site were obtained from HCC. The files contained a resource consent from HCC, dated June 2009, to undertake the refurbishment of the transmission towers at 580 Western Hutt Road, Lower Hutt. The refurbishment was required due to the weathering and corrosion of the towers and would include dry blasting to remove rust, painting and then galvanising the foundations.

None of the other acquired documents contained relevant information to the site history and/or potential for contamination.

5.3 Greater Wellington Regional Council Historical Information

The GWRC maintains a SLUR of properties that it knows to be either contaminated, or to have a past use or industry with a greater potential for contamination.

A review of the GWRC website³ indicated that the site is not on the SLUR. This was confirmed via email correspondence from GWRC.

³ <https://mapping.gw.govt.nz/gwrc/>

5.4 Client Provided Information

According to information supplied by the client, the site formerly operated as a working farm. It was obtained by HCC under the Public Works Act for housing but was later deemed surplus and subsequently acquired by DOC in 1989.

6.0 Summary of Site History

A review of historical information and information provided by the client indicates that the site was originally utilised for farmland from the earliest available image in 1942 before being acquired by DOC in 1989. A small building and associated structure were present from at least 1942 until 1966; however, it is not clear what their use was. Since at least 1984 the site has been predominantly covered in varying degrees of bush with an access track observed on the northern boundary. Minor soil disturbance was observed on the site's southern boundary between 2000 and 2009. The soil disturbance is likely associated with the neighbouring rock extraction activities at Belmont Quarry. It is considered that the likelihood of soil contamination from this activity is considered low and therefore has not been considered further.

A pylon has been present in the north-western part of the site from its first observation in 1957 to the present day.

The site is not currently listed on GWRC's SLUR.

7.0 Site Walkover

A site walkover was undertaken on 28 January 2026 and again during site works on 18 February 2026 and 4 March 2026, photographs from these visits are provided in Appendix D. Key features are shown on Figure 1, appended.

Key site features are outlined below:

- ✧ The site can be accessed by a gravel track from Hebdon Crescent to the top of the ridgeline adjacent to the transmission pylon. This area is covered with long grasses turning to dense bush.
- ✧ A track leads to a roped off area to protect locally rare trees within the north-eastern portion of the site.
- ✧ Two streams run through the site, likely to be ephemeral, with steep slopes at the head of the gullies within the north-eastern portion of the site (see Figure 1 for the location of these streams).
- ✧ There is a cleared access track which runs from the gravel access road to the north of the site through to the central portion of the site.
- ✧ A pile of degraded corrugated metal sheets and a roof frame were observed in the central part of the site adjacent to a cleared area in the vicinity of the former dwelling.
- ✧ Abandoned farm machinery was observed in two locations, at the head of a gully and near the stream, both in the north-eastern part of the site.
- ✧ A pile of corrugated roofing material was observed in the south-western portion of the site.
- ✧ The southern portion of the site was predominately inaccessible due to dense vegetation and steep slopes.

8.0 Site Characterisation

The MfE maintains a HAIL, which is a compilation of activities and industries that are considered likely to cause land contamination resulting from hazardous substance use, storage or disposal. The HAIL is intended to identify situations in New Zealand where hazardous substances could cause, and in many cases have caused, land contamination.

The abrasive blasting of the present-day transmission pylons falls within HAIL Category D1: Metal extraction, refining and reprocessing, storage and use.

Two small buildings were present onsite during the period when use of asbestos containing materials (ACM) and lead-based paints was prevalent. As such, it is possible that deteriorating and weathering of this material may have impacted site soils. The extent of contamination is expected to be limited to surface soils of the original ground level. If asbestos and lead are present in these soils at concentrations sufficient to constitute a risk to human health or the environment the affected soils could fall within Category I: Any other land that has been subject to the intentional or accidental release of a hazardous substance in *sufficient quantity* that it could be a risk to human health or the environment.

In addition, the degradation of metal products overtime has the potential for contaminants to leach into the surrounding soils. Given the age of the historical onsite structures the corrugated sheeting is likely to be galvanised steel in which the metal was coated with zinc to prevent rust. Therefore, potential contaminants in the surrounding soils from the metal sheets are zinc and cadmium (cadmium may be coexisting with zinc as a byproduct of anti-corrosion products (galvanising steel))⁴. Similar to the above, the extent of contamination is expected to be limited to surface soils in the vicinity of the historical structures/corrugated sheeting. If zinc and cadmium are present in these soils at concentrations sufficient to constitute a risk to human health or the environment the affected soils could fall within Category I: Any other land that has been subject to the intentional or accidental release of a hazardous substance in *sufficient quantity* that it could be a risk to human health or the environment.

9.0 Preliminary Conceptual Site Model

A risk to human health or the environment can only exist if there is a contaminant source (i.e. contaminated soil, dust or water), a receptor (i.e. people) and an exposure pathway between the source and the receptor. An absence of any one of these components means no risk can exist.

A preliminary conceptual site model (CSM) is set out in Table 2 below. The table presents the potential contaminant sources as per Section 8, the future receptors (i.e. users of the site associated with the development of the proposed OBDA, the receiving environment (ephemeral streams located on site) and the potential pathways whereby the receptors could be exposed directly or indirectly to soil contaminants. The likelihood of contamination, based on the site history, and the likelihood of exposure based on the proposed site use, can then be assessed to determine where a complete pathway is likely to exist.

⁴ <https://www.sciencedirect.com/science/article/abs/pii/S0921344912000031>.

Table 2: Preliminary Conceptual Site Model – Proposed OBDA, Belmont Quarry

Source	Exposure Pathway	Possible Receptor	Pathway Linkage
Soil contamination associated with blasting of the current transmission pylon	Dermal contact, ingestion of soil, inhalation of dust/vapours	OBDA Excavation workers	Incomplete: Proposed OBDA design plans identify that no soil disturbance is to occur in the immediate vicinity of the transmission pylon.
Lead and asbestos soil contamination as a result of historical demolition and construction of historical structures	Dermal contact, ingestion of soil, inhalation of dust	OBDA Excavation workers	Potentially Complete: Should contamination exist within the underlying soils, a risk may be present to excavation and maintenance workers. This will be managed through the implementation of a contaminated site management plan/remedial action plan (CSMP/RAP) and appropriate personal protection equipment (PPE).
	Surface water runoff and infiltration of lead to groundwater	Groundwater users	Incomplete: There are no bores within the site boundary.
		Surface water runoff to downstream aquatic environments including the ephemeral streams located onsite	Potentially Complete: If contaminants are present in the shallow soils on site, there is potential that they may become mobile and leach into waterways. Some potential contaminant sources are close to the water ways and may periodically leach into the surface water.
Zinc and cadmium soil contamination as a results of degrading metals sheets	Dermal contact, ingestion of soil, inhalation of dust	OBDA Excavation workers	Potentially Complete: Should contamination exist within the underlying soils, a risk may be present to excavation and maintenance workers. This will be managed through the implementation of a contaminated site management plan (CSMP) and appropriate personal protection equipment (PPE).
	Run off and infiltration to groundwater	Groundwater users	Incomplete: There are no bores within the site boundary.
		Surface water runoff to downstream aquatic environments including the ephemeral streams located onsite	Potentially Complete: If contaminants are present in the shallow soils on site, there is potential that they may become mobile and leach into waterways. Some potential contaminant sources are close to the water ways and may periodically leach into the surface water.

10.0 Soil Sampling Plan

The aim of the soil sampling strategy was to specifically target areas where the former structures, degrading metal sheets, and abandoned farm equipment were identified during the site walkover. The aim of sampling at these locations was to assess potential risks to site workers who may have regular contact with surface soils and to assess the risk to the ephemeral streams onsite, as well as to inform appropriate soil management and disposal requirements.

Initial soil sampling was to be undertaken immediately adjacent to the contaminant source with additional delineation sampling undertaken at approximately 1 m, 2 m, 5 m, and 10 m from the original sampling locations with samples obtained from the surface, 0.3 m bgl and 0.5 m bgl to characterise the lateral and vertical extent of contamination and to confirm whether impacts were localised.

11.0 Site Investigation Activities

11.1 Intrusive Investigation

Initial soil sampling was undertaken on 18 February 2026 at six targeted locations (SS01 – SS06), with soil collected at the near-surface (0.0 m bgl) and at 0.3 m bgl to characterise soil conditions and to assess the presence of potential contaminants. Select samples were analysed for key contaminants of concern (see Table 3). Following a review of the initial analytical results (refer to Section 12), delineation sampling was undertaken 4 March 2026 at a further 16 locations positioned at regular intervals (1 m, 2 m, 5 m, and 10 m) from the original source areas. Delineation samples were collected at depths of 0.05 m bgl, 0.3 m bgl and 0.5 m bgl. Furthermore, sampling was completed at one additional location (SS07) adjacent to the former dwelling and one location adjacent to metal sheeting (SS08) at depths of 0.05 m bgl, 0.3 m bgl and 0.5 m bgl, and an additional deeper sample was collected at the at the original SS03 location at a depth of 0.5 m bgl. Additionally, one bulk material sample comprising corrugated roofing material recovered from at SS01 was collected.

A total of 69 soil samples and one bulk material sample were collected across the initiation sampling (12 samples) and delineation sampling (57 soil samples and one bulk material sample) events.

Due to time constraints and practicalities associated with the investigation scope, delineation sampling was only undertaken downgradient of the contaminant source as this was considered to be the preferential pathway for any contaminant migration. Additional sampling will be undertaken during remedial works at the site to fully delineate any associated contamination.

The rationale associated with each sampling location is presented in Table 3, below.

Table 3: Soil Sampling Rationale Summary

Target Area Observations	Sample Location	Site Walkover Photograph Reference	Sampling Rationale
Corrugated roofing material	SS01	Photograph 7	One bulk material sample comprising fibrous roofing material was analysed for asbestos. Soil samples were placed on hold cold pending a review of the bulk analysis.
General coverage	SS02	NA	Samples were placed on hold cold. No analysis was undertaken due to no contaminant source.
Degraded metal sheeting	SS03 SS04	Photograph 8	Heavy metals and potential asbestos associated with historical onsite structures and activities.
Historical dwelling and existing roof structure	SS05	Photograph 9	
Abandoned machinery	SS06	Photograph 10	
Historical dwelling and existing roof structure	SS07	Photograph 9	
Degraded metal sheeting	SS08	N/A	
Second piece of abandoned machinery	No samples obtained	N/A	Due to time constraints no samples were obtained from this location. Additional sampling will be undertaken during remedial works at the site to determine analytical concentrations.

Sampling was completed by two PDP environmental scientists using hand excavation methods. All locations were backfilled upon completion. Quality assurance and quality control measures were implemented during the soil sampling investigation to ensure sample integrity and to minimise the potential for cross-contamination. A fresh pair of nitrile gloves were worn to transfer the material from the auger hole to a glass sample jar and plastic pottle. Sampling equipment was decontaminated between samples with a solution of Decon90 diluted in water. The jars were placed into a chilly bin containing ice and sent via courier to Hill Laboratories, an IANZ accredited laboratory, under PDP's Chain of Custody (COC) procedures.

11.1 Laboratory Analysis

The following analytical analysis was undertaken:

- ✧ Eight soil samples collected at 0.05 m bgl and 0.3 m bgl immediately adjacent to the degrading metal sheeting (SS03 and SS04), the former roof structure (SS05), and the abandoned farm equipment (SS06) were analysed for a suite of heavy metals (arsenic, cadmium, chromium, copper, lead, nickel and zinc).
- ✧ Twenty delineation samples from SS03, SS04, SS05, and SS06 collected at depths of 0.05 m bgl and 0.3 m bgl at 1 m from the source and at 0.05 m bgl at distances of 2 m and 5 m from the source were analysed for a suite of heavy metals.
- ✧ Three soil samples were collected adjacent to historical structures or in areas where anthropogenic materials were encountered and were analysed for semi-quantitative asbestos.
- ✧ The bulk material sample comprising corrugated roofing material recovered from SS01 was analysed for asbestos presence/absence⁵.
- ✧ The remaining soil samples were placed on hold at the laboratory pending review of the results.

11.2 Field Observations

The lithology across the site was generally comparable. During soil sampling, the following was observed:

- ✧ Glass fragments were observed at the surface at SS03 and SS04.
- ✧ The surface samples comprised a brown silty leaf litter, underlain by a medium brown sand at SS01 and a brown silty clay across the other sampling locations.
- ✧ Water was encountered at 0.3 m bgl in SS03 and at 0.2 m bgl in SS06. This water is interpreted to be perched surface water, likely resulting from recent rainfall, with infiltration restricted by the underlying clayey soil matrix.
- ✧ Corrugated roofing material, suspected to comprise ACM, were observed at sampling location SS01. No other suspected ACM was observed.
- ✧ No staining or olfactory evidence of contamination was noted on any soil material.

Photographs are appended in Appendix D.

12.0 Soil Sampling Results

Laboratory results of the soil analysis, along with comparison to applicable assessment criteria, for initial and delineation sampling are provided in Tables 3 and 4, respectively (see Appendix E). The laboratory reports and associated chain of custody documentation are included in Appendix F. Only results above the laboratory method detection limit have been tabulated.

12.1 Initial Sampling

The initial sampling results were generally comparable across the site for arsenic, chromium, copper and nickel.

Surface samples within the vicinity of exposed metal sheeting and the roof structure (SS03, SS04 and SS05) all contained elevated zinc and cadmium within shallow soils, with the greatest concentrations noted to be 4,100 mg/kg (SS03_0.0) and 9.1 mg/kg (SS03_0.0) respectively. Zinc concentrations generally decreased

⁵ No soil samples from this location were analysed as the bulk material was confirmed to not contain asbestos (see Section 12 for further detail).

with depth with the exclusion of sampling location SS03_0.5, which recorded a zinc concentration of 1,520 mg/kg.

Lead was also comparably elevated in five samples, with concentrations ranging from 108 to 350 mg/kg (SS06_0.05 and SS03_0.5, respectively).

12.2 Delineation Sampling

Across most delineation locations, zinc concentrations decreased with increasing lateral distance from the contamination source material. At SS03, zinc measured 480 mg/kg at 1 m from the source (SS03a_0.05), representing an order-of-magnitude decrease compared with surface concentrations immediately adjacent to the source materials. Cadmium showed a similar trend, decreasing from 9.1 mg/kg in the surface sample (SS03_0.0) to 1.01 mg/kg at 1 m from the source (SS03a_0.05).

An exception was identified at SS08a and SS08b, where elevated zinc concentrations of 1,570 mg/kg and 1,210 mg/kg, respectively, were detected in surface soils despite being 1 m and 2 m from the original source areas, respectively. These locations are situated on a steeper downgradient slope relative to other sampling points, indicating that surface runoff, may have contributed to a wider lateral spread of contaminants.

Zinc and cadmium concentrations at 0.3 m bgl were generally also significantly lower than corresponding surface samples, indicating limited vertical migration.

Overall, the results demonstrate that zinc and cadmium contamination is predominantly shallow, with concentrations decreasing with depth and generally attenuating laterally away from source areas. This distribution is consistent with contamination arising from the long-term weathering and degradation of metal materials, rather than widespread contamination.

Slightly elevated lead was observed in SS03a_0.05, SS03b_0.05, SS05a_0.05 and SS05a_0.3 at concentrations between 210 mg/kg (SS05a_0.05) and 370 mg/kg (SS05a_0.3).

Asbestos was not detected in any of the three soil samples analysed. Asbestos was not detected in the bulk material sample obtained at SS01, therefore no additional soil sampling was undertaken within this location

13.0 Applicable Soil Criteria

In accordance with MfE's *Contaminated Land Management Guidelines No.2 – Hierarchy and Application in New Zealand of Environmental Guideline Values (MfE, 2011a)*, New Zealand risk-based standards or guidelines should be used where the exposure assumptions and exposure scenarios are relevant to the site. Where New Zealand guidelines do not exist, overseas risk-based guidelines may be used.

There are soil contaminant standards (SCS) contained in MfE's *Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health* (2011b) for all heavy metals analysed, with the exception of nickel and zinc. For nickel and zinc, results have been compared to soil guidelines values (SGV) contained in the *Australian National Environmental Protection (Assessment of Site Contamination) Amendment Measure 2013* (NEPM, 2013) criteria. Samples were compared to the values associated with commercial/industrial land use.

To assess environmental risk (as well as soil disposal options), soils were compared to Class 3 waste acceptance criteria (WAC) published in *Technical Guidelines for Disposal to Land* (WasteMINZ, 2023).

14.0 Comparison of Results to Applicable Soil Criteria

14.1 Human Health Risk Assessment

All samples analysed for heavy metals contained concentrations below the utilised human health SCS/SGV for commercial/industrial land use and asbestos was not detected in any of the analysed samples. Therefore, soils at the site are not considered to pose an unacceptable risk to human health for commercial/industrial land use or for short term exposure for OBDA workers.

14.2 Environmental Risk Assessment

Class 3 WAC (WasteMINZ, 2023) have been used as proxy to assess whether the detected soil concentrations pose a risk to the on- or offsite environment receptors. The WasteMINZ guidelines contain WAC, which have been developed to provide confidence that materials placed within a facility do not result in an unacceptable adverse effect on human health or environmental receptors. For landfills with limited or no engineered containment, the WAC are the primary control on potential effects from the fill or waste material.

Of the five landfill classes, the WAC for Class 3 landfills is considered to be the most relevant in relation to assessing the potential discharge of contaminants from the site during earthworks at the site. This is because Class 3 landfills are assumed to have no engineering containment but engineered runoff controls exist both during the operational and post-closure phases which will also be the case during the proposed earthworks at the site. Furthermore, the Class 3 WAC have been developed to consider protection of groundwater drinking water and aquatic environment protection pathways from the leaching of contaminants within the soil via groundwater or seepage. In this way, the Class 3 WAC can be used as a proxy to assess the risk to groundwater (where groundwater is a complete pathway) and surface water from soil contaminant concentrations at the site.

The soil analytical results presented in Tables 4 and 5, have been compared against the Class 3 WAC. All heavy metal concentrations, excluding zinc, returned concentrations below the Class 3 WAC.

Out of the 22 samples, a total of four samples exceed the Class 3 criteria for zinc (1,200 mg/kg) with concentrations ranging from 1,210 mg/kg to 4,100 mg/kg. However, given the observed localised sources of this contamination it is considered that these exceedances are likely to be isolated hotspots associated with the degradation of metal sheeting.

Based on the entire data set of testing undertaken at the site and observed sources it is expected that the contamination is localised to the source areas and is constrained both laterally and vertically. Generally, within 2 m, and 3 m within SS08, of the source soils comply with guideline values. With the exception of SS03, where zinc was slightly elevated above Class 3 guidelines at 0.5 m bgl, soils at 0.3 m bgl contained significantly lower zinc concentrations than 0.05 m bgl. This suggests that the impacted soils are likely limited to near the source material and are not highly mobile. Based on the source material and the current results data set further reductions in zinc concentrations are expected below 0.5m.

A Remediation Action Plan (RAP) (PDP, 2026) has been completed in conjunction with this report and should be read alongside this document. The RAP identifies “hotspots” as the material within a minimum 2 m radius from the contamination source, to a minimum depth of 0.5 m bgl must be removed from site. Material associated with the “hotspots” will be subject to site validation, to demonstrate the concentration of contaminants in the material remaining on site complies with the applicable soil criteria and as such poses no environmental risk. The material that exceeds the Class 3 WAC criteria shall be removed from site and disposed of at a Class A landfill facility.

It is also assumed that all earthworks associated with the development of the OBDA will be undertaken in a manner that minimises any potential adverse effects on the environment. Erosion and sediment control systems will be implemented during earthworks, and defined practices and procedures as detailed in the RAP (PDP, 2026) will be adhered to. This means that there is unlikely to be an unacceptable risk to the environment from zinc either on-site or off-site during earthworks.

15.0 Updated Conceptual Site Model

A preliminary CSM was developed using the information acquired in the PSI component of this report. The CSM has been updated to reflect the findings of the DSI component, as summarised below in Table 3 below.

Table 3: Updated Conceptual Site Model – Proposed OBDA, Belmont Quarry

Source	Exposure Pathway	Possible Receptor	Pathway Linkage
Soil contamination associated with blasting of the current transmission pylon	Dermal contact, ingestion of soil, inhalation of dust/vapours	OBDA Excavation workers	Incomplete: Proposed OBDA design plans identify that no soil disturbance is to occur in the immediate vicinity of the transmission pylon.
Lead and asbestos soil contamination as a result of historical demolition and construction of historical structures	Dermal contact, ingestion of soil, inhalation of dust	OBDA Excavation workers	Incomplete: Concentrations in analysed soil samples were either below the relevant SCS/SGV or below detection limits.
		Groundwater users	Incomplete: There are no bores within the site boundary.
	Surface water runoff and infiltration of lead to groundwater	Downstream aquatic environments	Incomplete: Lead concentrations in analysed soil samples were below environmental thresholds. Asbestos was not detected in analysed soil or bulk material samples.
Zinc and cadmium soil contamination as a results of degrading metals sheets	Dermal contact, ingestion of soil, inhalation of dust	OBDA Excavation workers	Incomplete: Concentrations in analysed soil samples were either below the relevant SCS/SGV or below detection limits.
		Groundwater users	Incomplete: There are no bores within the site boundary.
	Surface water run off and/or infiltration to groundwater	Downstream aquatic environments (ephemeral streams located onsite. Distances from the contaminant source range between immediately adjacent to approximately ~20 m away)	Complete but will be managed: Soils with zinc concentrations above environmental thresholds will be remediated in accordance with the site's RAP (PDP, 2026). Controls outlined in the RAP will be followed.

16.0 Regulatory Considerations

16.1 NESCS

The NESCS seeks to control activities on contaminated land so as to protect human health. The regulations apply to a “piece of land” which is described by one of the following (regulation 5(7)):

- (a) *an activity or industry described in the HAIL is being undertaken on it.*
- (b) *an activity or industry described in the HAIL has been undertaken on it.*
- (c) *it is more likely than not that an activity or industry described in the HAIL is being or has been undertaken on it.*

Secondly, as HAIL land, the NESCS will apply if one or more of the regulated activities in sub-clauses (2) – (6) of regulation 5 is to take place. Given the proposed use of the site, the applicable activity that could apply is sub clauses (4).

- (4) *An activity is disturbing the soil of the piece of land, which—*
 - (a) *means disturbing the soil of the piece of land for a particular purpose:*
 - (b) *does not include disturbing the soil of the piece of land, whatever the purpose, if the land is land to which regulation 33(9) or 36 of the Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009 applies.*

Maintenance of the transmission pylon falls under the Resource Management (*National Environmental Standard for Electricity Transmission Activities*) Regulations. As such, the NESCS does not apply to soil disturbance within the vicinity of the current transmission pylon. In addition, no soil disturbance is proposed in the vicinity of the pylon as part of the development of the OBDA.

The results of the intrusive investigation indicate zinc concentrations in the delineated, immediate surrounds of the degraded metal may pose a risk to the environment and as such meet the threshold for HAIL category I.

As such, it is considered that in relation to soil disturbance, the HAIL ‘piece of land’ as described by the NESCS, pertains to a minimum 2 m radius area surrounding the metal and machinery and a 3 m radius around SS08⁶.

The remainder of the OBDA footprint has been characterised and does not meet the definition of HAIL land.

16.2 GWRC NRP

The GWRC NRP has three rules relating to contaminated land. An assessment of the relevant rules is shown below.

- ✧ R81: The production of this DSI report is a permitted activity provided the report is submitted to GWRC within two months following the completion of the investigation.
- ✧ R82: The results of the DSI indicate that elevated zinc concentrations are present at the site at a quantity that may pose a risk to the environment.

⁶ Noting that only one transect from each hotspot has been undertaken and additional sampling will be undertaken during the remedial work to determine the hotspot extent.

- ∴ R83: As results of the investigation do not comply with R82, the proposed development is considered a discretionary activity under rule R83. The discretionary status relates only to disturbance and remediation of the minimum 2 m radius areas surrounding the metal and machinery and 3m surrounding SS08. General OBDA earthworks outside of these delineated areas will be managed through standard earthworks controls, RAP implementation, and an unexpected discovery protocol.

17.0 Soil Management and Disposal Assessment

It is understood that onsite topsoil is to be stripped, stockpiled and reused on site during the construction of the OBDA.

The majority of the sampled soils are considered suitable for reuse onsite under a commercial/industrial land use scenario. However, soils impacted by the metal sheeting and machinery, within a lateral extent of approximately 2 m, and 3 m at SS08, and to a minimum depth of up to 0.5 m bgl, will require offsite disposal due to elevated zinc concentrations that may present an environmental risk.

To assess soil disposal options, laboratory results have been compared to WAC for Class A landfills (MfE, 2004).

Several samples representative of soil to be disposed of offsite exceeded the Class A WAC for lead and zinc. Subsequent toxicity characteristic leaching procedure (TCLP) analysis on samples SS03_0.5 and SS5_0.5 returned lead and zinc leachate concentrations below the MfE Class A leachate criteria. Extrapolation of the TCLP results indicates that soils from other sampling locations, which were not subject to TCLP analysis, would also fall well within the Class A landfill leachate criteria.

18.0 Conclusions

PDP have been engaged by Winstone to undertake a PSI/DSI for the proposed OBDA at Belmont Quarry. The report has been produced in support of Winstone's substantive aspect of the Belmont Quarry Development Fast-Track FAA.

Key findings of this investigation are summarised as follows:

- ∴ A review of historical information indicates that the site was historically used for farming purposes, with two small buildings present between 1942 and 1966, followed by progressive revegetation. A transmission pylon has been present on the northern part of the site since at least 1957.
- ∴ A site walkover identified discarded, degrading sheet metal and abandoned farm machinery at several locations and as such an intrusive investigation was undertaken to assess potential impacts of leaching of heavy metals and the presence of asbestos in the shallow surface soils. The intrusive investigation identified the following:
 - Laboratory results indicate that arsenic, chromium, copper and nickel concentrations across the site are generally consistently low.
 - Comparatively elevated zinc and occasionally cadmium concentrations (above the waste acceptance criteria for Class 3 landfills which have been used as proxy to assess environmental risk) were identified in shallow surface soils in isolated areas in the vicinity of exposed metal sheeting, roof structures and machinery. Sampling to date identified zinc and cadmium concentrations generally decrease with depth and lateral spread, indicating likely limited migration.
 - Asbestos was not detected in any soil or bulk material samples analysed.

- All soil samples complied with applicable human health soil contaminant standards for commercial/industrial land use, and as such soils are not considered to pose an unacceptable risk to human health, including for short-term exposure of OBDA workers.
- The results of the intrusive investigation indicate zinc concentrations in the delineated, immediate surrounds of the degraded metal may pose a risk to the ephemeral streams onsite if not managed and as such meet the threshold for HAIL category I. As such, it is considered that in relation to soil disturbance, the HAIL 'piece of land' as described by the NESCS, pertains to a minimum 2 m radius area surrounding the metal and machinery and a minimum 3 m radius at SS08. This soil will require offsite disposal at a Class A landfill. Additional delineation sampling will be required during remedial excavation work at the site to confirm the extent of the "hotspot" areas.

19.0 References

GWRC, 2023. *Natural Resources Plan for the Wellington Region*.

MfE, 2004. *Hazardous Waste Guidelines Landfill Waste Acceptance Criteria and Landfill Classification*.
Ministry for the Environment, Wellington

MfE, 2011a. *Contaminated Land Management Guidelines No. 2 – Hierarchy and Application in New Zealand of Environmental Guideline Values*. Ministry for the Environment, Wellington.

MfE, 2011b. *Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health*.
Ministry for the Environment, Wellington.

MfE, 2011c. *Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand*. Ministry for the Environment, Wellington.

MfE, 2021a. *Contaminated Land Management Guidelines No. 1 – Guidelines for Reporting on Contaminated Sites in New Zealand revised 2021*. Ministry for the Environment, Wellington.

MfE, 2021b. *Contaminated Land Management Guidelines No. 5 – Site Investigation and Analysis of Soils revised 2021*. Ministry for the Environment, Wellington.

NEPM, 2013. *Australian National Environmental Protection (Assessment of Site Contamination) Amendment Measure 2013*.

PDP, 2026. *Remedial Action Plan – Proposed Overburden Disposal Area*.

WasteMINZ, 2023. *Technical Guidelines for Disposal to Land – Waste Management Institute New Zealand: Revision 3.1*.

20.0 Limitations

This report has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Winstone Aggregates Limited (Winstone) and others not directly contracted by PDP for the work, including Hutt City Council, Greater Wellington Regional Council and Retrolens. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the report. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This report has been prepared by PDP on the specific instructions of Winstone for the limited purposes described in the report. PDP accepts no liability if the report is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

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Yours faithfully

PATTLE DELAMORE PARTNERS LIMITED

Prepared by

Reviewed by

Jess Campbell

Senior Environmental Scientist

Melody Robyns

Service Leader – Contaminated Land

Approved by

Hamish Wilson

Technical Director – Contaminated Land

Appendix A: Certifying Statement

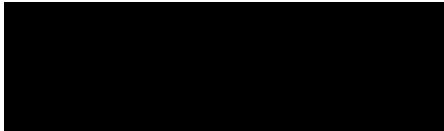
I, Hamish Wilson, of Pattle Delamore Partners certify that this preliminary/detailed site investigation meets the requirements of the Resource Management (*National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*) Regulations 2011 (the NES-CS) because it has been:

- a. Completed by a suitably qualified and experienced practitioner;
- b. Reported on in accordance with the current edition of *Contaminated land management guidelines No. 1 – Reporting on contaminated sites in New Zealand*; and
- c. Certified by a suitably qualified and experienced practitioner.

Evidence of the qualifications and experience of the suitably qualified and experienced practitioner(s) who have done this investigation and certified this report is provided below.

This certification applies to the date of this report.

Signed,



Hamish Wilson

Technical Director – Contaminated Land

Hamish Wilson – Project Director

Hamish is an environmental engineer with over 26 years of experience in undertaking environmental and contaminated land assessments. Hamish has a BE in Civil and Resource Engineering from the University of Auckland. Hamish has experience with undertaking and managing site investigations, environmental assessments, and monitoring programmes for a range of environmental issues, across a broad range of media including soil, sediment, surface water, groundwater, and ground gas; and for a wide range of contaminants including heavy metals, petroleum hydrocarbons, and asbestos. Hamish has experience in the assessment of data (including statistical analysis) to undertake risk assessments, including Tier 2 risk assessments. He has familiarity with and understanding of the current contaminated land regulation and practice in New Zealand including assessments against the NES-CS; and in the consenting of contaminated sites.

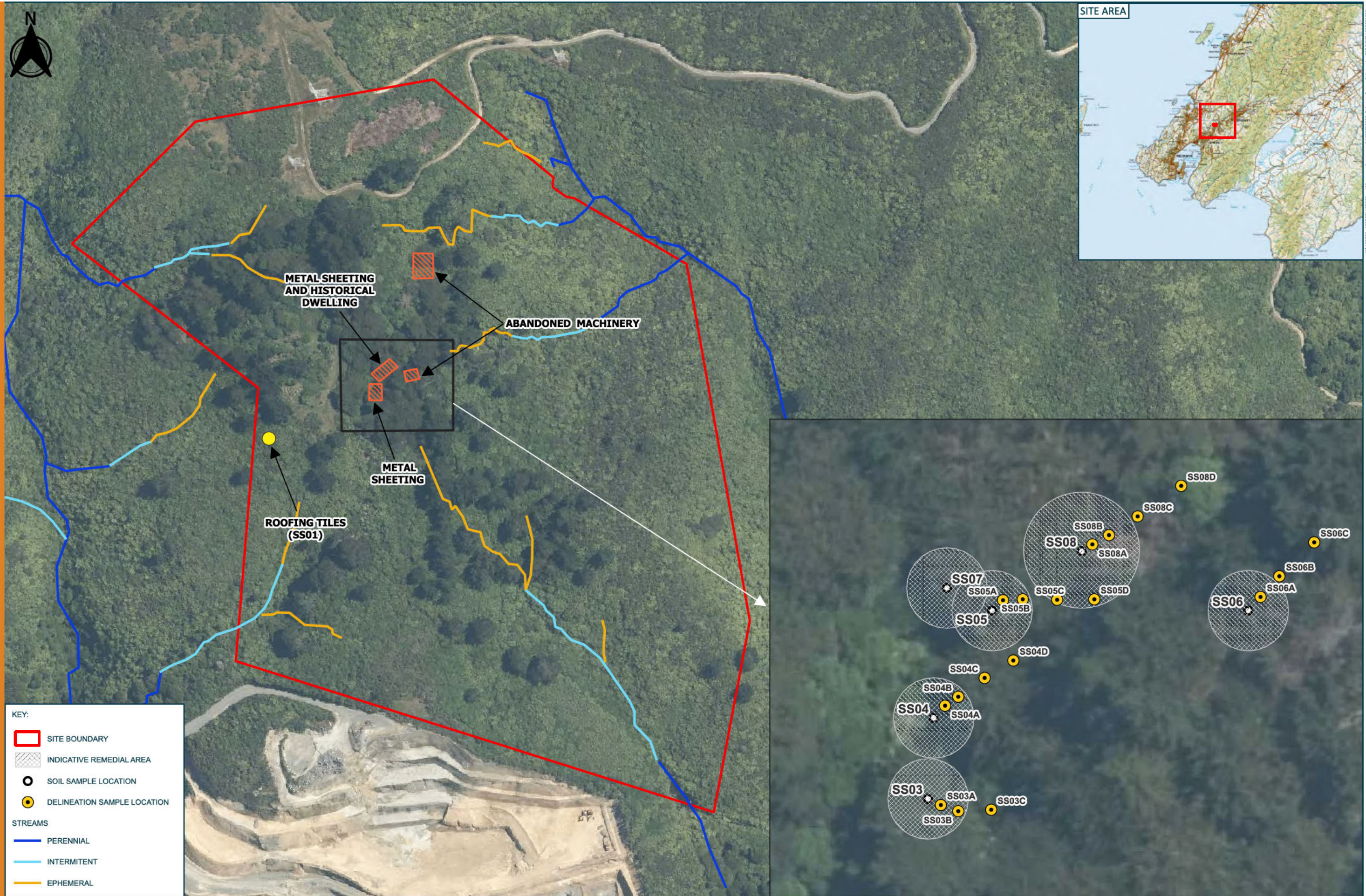
Melody Robyns – Project Manager and PSI Report Reviewer

Melody is an Environmental Scientist with a Master of Science in Physical Geography. Melody has a background in environmental site investigations and contaminated land assessments. She is an experienced project manager with over 10 years' experience and is competent in risk identification, mitigation and problem solving. Her involvement in projects includes project management, technical input, risk assessments and liaison with stakeholders.

Jess Campbell – Author

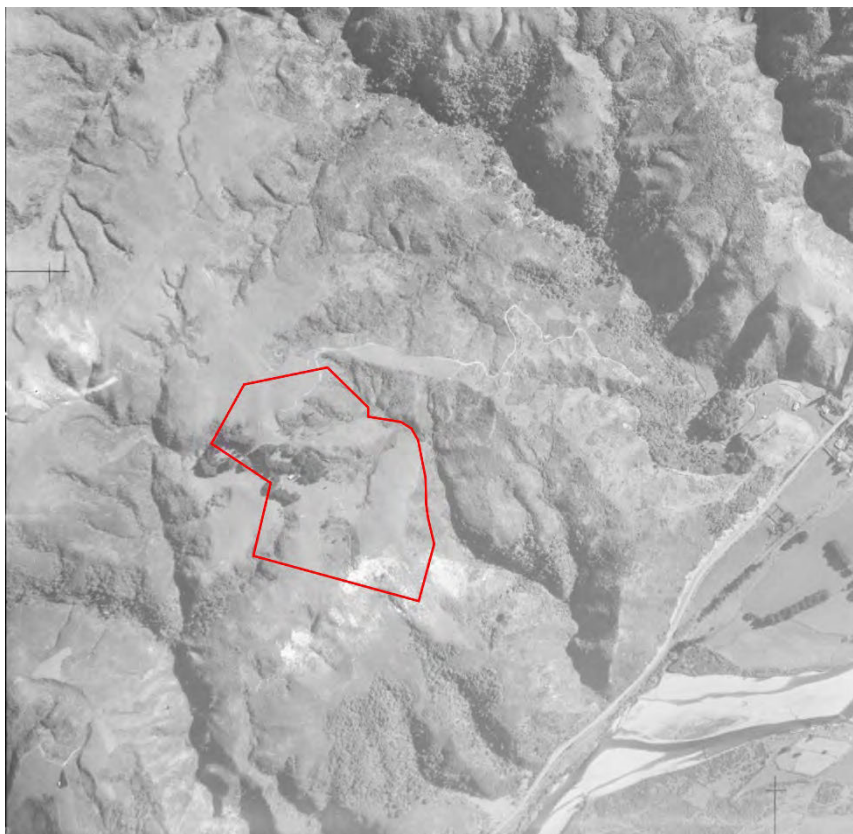
Jess is an Environmental Geologist with over 6 years' experience in undertaking contaminated land assessments across New Zealand and the UK. She has a MESci in Geology and Physical Geography from the University of Liverpool. Jess has practical experience in undertaking and managing investigations and ongoing monitoring of soil and groundwater for industrial, commercial and residential land development projects. Jess has experience in the interpretation and implementation of the NES-CS, project management, risk assessments and liaison with stakeholders.

Appendix B: Figure 1 – Site Location Plan





Appendix C: Historical Aerial Photographs



Historical Aerial Photograph 1: 1942 (Retrolens)



Historical Aerial Photograph 2: 1957 (Retrolens)



Historical Aerial Photograph 3: 1966 (Retrolens)



Historical Aerial Photograph 4: 1984 (Retrolens)



Historical Aerial Photograph 5: 2000 (Retrolens)



Historical Aerial Photograph 6: 2004 (Google Earth Pro)



Historical Aerial Photograph 7: 2009 (Google Earth Pro)



Historical Aerial Photograph 8: 2013 (Google Earth Pro)



Historical Aerial Photograph 9: 2019 (Google Earth Pro)



Historical Aerial Photograph 10: 2024 (Google Earth Pro)



Appendix D: Site Walkover Photographs



Photograph 1: View of onsite pylons, looking north.



Photograph 2: General overview of cleared area.



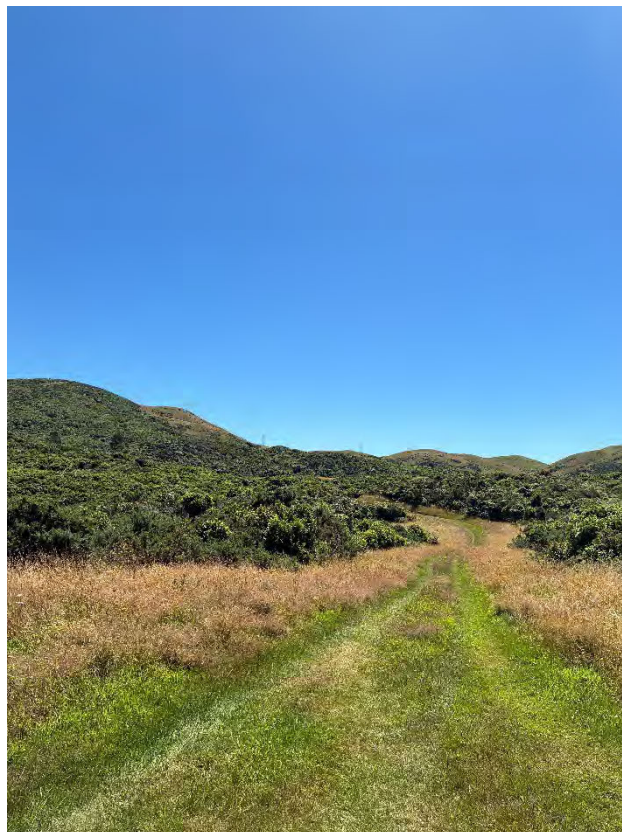
Photograph 3: General overview of shorter vegetation, looking south.



Photograph 4: General overview of dense vegetation, looking southwest.



Photograph 5: General overview of dense bush looking southeast.



Photograph 6: Access track to the north of the site, looking north.



Photograph 7: Photo of potential asbestos at SS01.



Photograph 8: Example of metal sheeting at SS03 and SS04.



Photograph 9: Roof structure at former dwelling (SS05).



Photograph 10: Example of abandoned machinery at SS06.



Photograph 11: General overview of lithology encountered.



Photograph 12: General overview of lithology encountered.



Appendix E: Analytical Tables



Table 4: Soil Analytical Results - Heavy Metals ¹ - Commercial/Industrial LAND USE ²

Sample Name	SS03_0.0	SS03_0.3	SS03_0.5	SS04_0.0	SS04_0.3	SS05_0.0	SS05_0.3	SS06_0.0	SS06_0.3	SS07_0.0	SS07_0.3	SS07_0.5	NES SCSs & SGVs ³	WasteMINZ WAC ⁵	
Laboratory Reference	4104589.5	4104589.6	4121793.1	4104589.7	4104589.8	4104589.9	4104589.10	4104589.11	4104589.12	4121793.43	4121793.44	4121793.45			
Date Sampled	18 Feb 2026		4 Mar 2026	18 Feb 2026						4 Mar 2026					
Property Address	Belmont Regional Park												Commercial / industrial	Class A	Class 3
Sample Location	SS03	SS03	SS03	SS04	SS04	SS05	SS05	SS06	SS06	SS07	SS07	SS07			
Contaminant Source	Discarded metal sheeting														
Sample Depth (meters below ground level)	0.0	0.3	0.5	0.0	0.3	0.0	0.3	0.0	0.3	0.0	0.3	0.5			
Heavy Metals															
Arsenic	< 4	3	4	3	2	< 4	4	4	6	2	3	3	70	100	140
Cadmium	9.1	1.5	3.5	1.73	0.13	2.2	0.47	0.43	< 0.10	1.85	2.4	0.24	1,300	20	10
Chromium	5	13	16	13	14	11	16	13	17	11	13	13	6,300 ^{3a}	100	150
Copper	43	29	35	14	5	15	15	17	10	10	16	6	>10,000	100	280
Lead	191	59	350	46	13.5	151	45	108	29	74	113	33	3,300 ^{3b}	100	460
Nickel	15	11	18	7	7	8	9	8	9	9	16	7	6,000 ⁴	200	320
Zinc	4,100	820	1,520	1,040	101	1,170	240	100	61	890	1,030	230	400,000 ⁴	200	1,200
TCLP															
Cadmium	0.0134	-	-	-	-	0.0026	-	-	-	-	-	-	-	1	-
Lead	0.032	-	-	-	-	0.0143	-	-	-	-	-	-		5	
Zinc	5.3	-	-	-	-	0.99	-	-	-	-	-	-		10	

100	Result exceeds Class A landfill Waste Acceptance Criteria
100	Result exceeds Class 3 Waste Acceptance Criteria
-	Parameter not tested / Guideline value not available

- Notes.
- Results in mg/kg.
 - Based on proposed future commercial/industrial land-use.
 - NES Soil Contaminant Standards (SCSs) from 'Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health' (MfE, 2011) - Commercial/industrial values adopted.
 - 3a. SCS value is for chromium VI.
 - 3b. SCS value is for inorganic lead.
 - Guideline values from 'Schedule B(1) Guideline on Investigation Levels for Soils and Groundwater National Environment Protection Measure' (NEPM), updated May, 2013 - Commercial/industrial values adopted.
 - Waste Acceptance Criteria (WAC) from Waste Management Institute New Zealand (WasteMINZ) 'Technical Guidelines for Disposal to Land, Revision 3.1' (WasteMINZ, 2023). Refer to references therein.



Table 5: Soil Analytical Results for Delineation - Heavy Metals ¹ - Commercial/Industrial LAND USE ²

Sample Name	SS03a_0.05	SS03a_0.3	SS03b_0.05	SS03c_0.05	SS04a_0.05	SS04a_0.3	SS04b_0.05	SS04c_0.05	SS05a_0.05	SS05a_0.3	NES SCSs & SGVs ³	WasteMINZ WAC ⁵	
Laboratory Reference	4121793.2	4121793.3	4121793.5	4121793.8	4121793.11	4121793.12	4121793.14	4121793.17	4121793.23	4121793.24			
Date Sampled	4 Mar 2026												
Property Address	Belmont Regional Park										Commercial / industrial	Class A	Class 3
Contaminant Source	Discarded metal sheeting								Historical dwelling				
Distance from original sample location (m)	1		2	5	1		2	5	1				
Sample Depth (meters below ground level)	0.05	0.3	0.05	0.05	0.05	0.3	0.05	0.05	0.05	0.3			
Heavy Metals													
Arsenic	3	2	4	3	3	3	2	3	5	5	70	100	140
Cadmium	1.01	0.27	0.86	0.33	0.54	0.22	0.26	0.2	0.46	0.41	1,300	20	10
Chromium	14	13	74	13	12	13	14	13	19	19	6,300 ^{3a}	100	150
Copper	43	12	24	29	9	8	8	8	13	13	>10,000	100	280
Lead	230	41	220	46	23	16.9	19.0	22	210	370	3,300 ^{3b}	100	460
Nickel	10	7	42	7	7	6	7	6	11	11	6,000 ⁴	200	320
Zinc	480	182	350	150	340	162	180	107	270	230	400,000 ⁴	200	1,200

Sample Name	SS05b_0.05	SS05c_0.05	SS06a_0.05	SS06a_0.3	SS06b_0.05	SS06c_0.05	SS08a_0.05	SS08a_0.3	SS08b_0.05	SS08c_0.05	NES SCSs & SGVs ³	WasteMINZ WAC ⁶	
Laboratory Reference	4121793.26	4121793.29	4121793.35	4121793.36	4121793.38	4121793.41	4121793.46	4121793.47	4121793.49	4121793.52			
Date Sampled	4 Mar 2026												
Property Address	Belmont Regional Park										Commercial / industrial	Class A	Class 3
Source	Historical dwelling		Abandoned machinery			Discarded metal sheeting near dwelling							
Distance from original sample location (m)	2	5	1		2	5	1		2	5			
Sample Depth (meters below ground level)	0.05	0.05	0.05	0.3	0.05	0.05	0.05	0.3	0.05	0.05			
Heavy Metals													
Arsenic	5	3	3	3	3	5	3	2	2	3	70	100	140
Cadmium	0.59	0.15	0.28	0.11	0.25	0.27	2.3	0.53	1.32	0.24	1,300	20	10
Chromium	17	15	16	17	15	21	11	13	11	13	6,300 ^{3a}	100	150
Copper	14	9	43	24	21	11	18	7	8	6	>10,000	100	280
Lead	64	77	46	26	30	29	25	16.4	24	33	3,300 ^{3b}	100	460
Nickel	10	9	9	9	10	11	7	7	6	7	6,000 ⁴	200	320
Zinc	270	91	81	59	71	177	1,570	410	1,210	230	400,000 ⁴	200	1,200

100	Result exceeds Class A landfill Waste Acceptance Criteria
100	Result exceeds Class 3 Waste Acceptance Criteria
-	Parameter not tested / Guideline value not available

- Notes.
- Results in mg/kg.
 - Based on proposed future commercial/industrial land-use.
 - NES Soil Contaminant Standards (SCSs) from 'Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health' (MfE, 2011) - Commercial/industrial values adopted.
 - 3a. SCS value is for chromium VI.
 - 3b. SCS value is for inorganic lead.
 - Guideline values from 'Schedule B(1) Guideline on Investigation Levels for Soils and Groundwater National Environment Protection Measure' (NEPM), updated May, 2013 - Commercial/industrial values adopted.
 - Waste Acceptance Criteria (WAC) from Waste Management Institute New Zealand (WasteMINZ) 'Technical Guidelines for Disposal to Land, Revision 3.1' (WasteMINZ, 2023). Refer to references therein.



Appendix F: Lab Results and Chain of Custody

Job Information Summary

Page 1 of 2

Client:	Pattle Delamore Partners Limited	Lab No:	4104589
Contact:	Melody Robyns	Date Registered:	19-Feb-2026 5:00 pm
	C/- Pattle Delamore Partners Limited	Priority:	High
	PO Box 6136	Quote No:	81087
	Wellington 6141	Order No:	
		Client Reference:	A035680020
		Add. Client Ref:	
		Submitted By:	Jessica Campbell
		Charge To:	Pattle Delamore Partners Limited
		Target Date:	10-Mar-2026 4:30 pm

Samples

No	Sample Name	Sample Type	Containers	Tests Requested
1	SS01_0.0 18-Feb-2026	Soil	GSoil300, GSoil300	Hold Cold
2	SS01_0.3 18-Feb-2026	Soil	GSoil300, GSoil300	Hold Cold
3	SS02_0.0 18-Feb-2026	Soil	GSoil300, GSoil300	Hold Cold
4	SS02_0.3 18-Feb-2026	Soil	GSoil300, GSoil300	Hold Cold
5	SS03_0.0 18-Feb-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level, TCLP Profile
6	SS03_0.3 18-Feb-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
7	SS04_0.0 18-Feb-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
8	SS04_0.3 18-Feb-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
9	SS05_0.0 18-Feb-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level, TCLP Profile
10	SS05_0.3 18-Feb-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
11	SS06_0.0 18-Feb-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
12	SS06_0.3 18-Feb-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
13	SS03_0.0 [TCLP Extract]	TCLP Extract	TCLPext	Total Lead, Total Zinc
14	SS05_0.0 [TCLP Extract]	TCLP Extract	TCLPext	Total Lead, Total Zinc

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	5, 12
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	5-12
TCLP Profile	Extraction at 30 +/- 2 rpm for 18 +/- 2 hours, (Ratio 1g sample : 20g extraction fluid). US EPA 1311.	-	5, 9
TCLP Profile			
TCLP Weight of Sample Taken	Gravimetric. US EPA 1311.	0.1 g	5, 9
TCLP Initial Sample pH	pH meter. US EPA 1311.	0.1 pH Units	5, 9
TCLP Acid Adjusted Sample pH	pH meter. US EPA 1311.	0.1 pH Units	5, 9
TCLP Extractant Type	US EPA 1311.	-	5, 9
TCLP Extraction Fluid pH	pH meter. US EPA 1311.	0.1 pH Units	5, 9
TCLP Post Extraction Sample pH	pH meter. US EPA 1311.	0.1 pH Units	5, 9

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Total Digestion of Extracted Samples	Nitric acid digestion. APHA 3030 E (modified) : Online Edition.	-	13-14
Total Lead	Nitric acid digestion, ICP-MS, screen level. APHA 3125 B : Online Edition.	0.0021 g/m ³	13 14
Total Zinc	Nitric acid digestion, ICP-MS, screen level. APHA 3125 B : Online Edition.	0.053 g/m ³	13 14

Certificate of Analysis

Page 1 of 2

Client:	Pattle Delamore Partners Limited	Lab No:	4104589	SPv4
Contact:	Melody Robyns	Date Received:	19-Feb-2026	
	C/- Pattle Delamore Partners Limited	Date Reported:	11-Mar-2026	(Amended)
	PO Box 6136	Quote No:	81087	
	Wellington 6141	Order No:		
		Client Reference:	A035680020	
		Submitted By:	Jessica Campbell	

Sample Type: Soil

Sample Name:	SS03_0.0	SS03_0.3	SS04_0.0	SS04_0.3	SS05_0.0
	18-Feb-2026	18-Feb-2026	18-Feb-2026	18-Feb-2026	18-Feb-2026
Lab Number:	4104589.5	4104589.6	4104589.7	4104589.8	4104589.9

Individual Tests

TCLP Weight of Sample Taken	g	50	-	-	-	50
TCLP Initial Sample pH	pH Units	7.0	-	-	-	7.3
TCLP Acid Adjusted Sample pH	pH Units	1.6	-	-	-	1.7
TCLP Extractant Type*	NaOH/Acetic acid at pH 4.93 +/- 0.05	-	-	-	-	NaOH/Acetic acid at pH 4.93 +/- 0.05
TCLP Extraction Fluid pH	pH Units	4.9	-	-	-	4.9
TCLP Post Extraction Sample pH	pH Units	5.0	-	-	-	5.0

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	< 4	3	3	2	< 4
Total Recoverable Cadmium	mg/kg dry wt	9.1	1.50	1.73	0.13	2.2
Total Recoverable Chromium	mg/kg dry wt	5	13	13	14	11
Total Recoverable Copper	mg/kg dry wt	43	29	14	5	15
Total Recoverable Lead	mg/kg dry wt	191	59	46	13.5	151
Total Recoverable Nickel	mg/kg dry wt	15	11	7	7	8
Total Recoverable Zinc	mg/kg dry wt	4,100	820	1,040	101	1,170

Sample Name:	SS05_0.3 18-Feb-2026	SS06_0.0 18-Feb-2026	SS06_0.3 18-Feb-2026
Lab Number:	4104589.10	4104589.11	4104589.12

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	4	4	6
Total Recoverable Cadmium	mg/kg dry wt	0.47	0.43	< 0.10
Total Recoverable Chromium	mg/kg dry wt	16	13	17
Total Recoverable Copper	mg/kg dry wt	15	17	10
Total Recoverable Lead	mg/kg dry wt	45	108	29
Total Recoverable Nickel	mg/kg dry wt	9	8	9
Total Recoverable Zinc	mg/kg dry wt	240	100	61

Sample Type: Aqueous

Sample Name:	SS03_0.0 [TCLP Extract]	SS05_0.0 [TCLP Extract]
Lab Number:	4104589.13	4104589.14

Individual Tests

Total Cadmium	g/m³	0.0134	0.0026
Total Lead	g/m³	0.032	0.0143
Total Zinc	g/m³	5.3	0.99

Analyst's Comments

Amended Report: This certificate of analysis replaces report '4104589-SPv3' issued on 10-Mar-2026 at 10:57 am.
Reason for amendment: Additional analysis added at clients request.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	5-12
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	5-12
TCLP Profile*	Extraction at 30 +/- 2 rpm for 18 +/- 2 hours, (Ratio 1g sample : 20g extraction fluid). US EPA 1311.	-	5, 9
TCLP Profile			
TCLP Weight of Sample Taken	Gravimetric. US EPA 1311.	0.1 g	5, 9
TCLP Initial Sample pH	pH meter. US EPA 1311.	0.1 pH Units	5, 9
TCLP Acid Adjusted Sample pH	pH meter. US EPA 1311.	0.1 pH Units	5, 9
TCLP Extractant Type*	US EPA 1311.	-	5, 9
TCLP Extraction Fluid pH	pH meter. US EPA 1311.	0.1 pH Units	5, 9
TCLP Post Extraction Sample pH	pH meter. US EPA 1311.	0.1 pH Units	5, 9

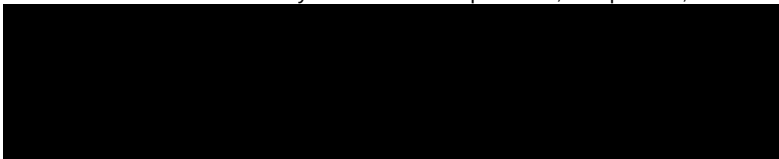
Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Total Digestion of Extracted Samples*	Nitric acid digestion. APHA 3030 E (modified) : Online Edition.	-	13-14
Total Cadmium	Nitric acid digestion, ICP-MS, screen level. APHA 3125 B : Online Edition.	0.0011 g/m ³	13-14
Total Lead	Nitric acid digestion, ICP-MS, screen level. APHA 3125 B : Online Edition.	0.0021 g/m ³	13-14
Total Zinc	Nitric acid digestion, ICP-MS, screen level. APHA 3125 B : Online Edition.	0.053 g/m ³	13-14

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 20-Feb-2026 and 11-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.



Client Services Manager - Environmental

Certificate of Analysis

Page 1 of 2

Client:	Pattle Delamore Partners Limited	Lab No:	4105834	A2Pv1
Contact:	Melody Robyns C/- Pattle Delamore Partners Limited PO Box 6136 Wellington 6141	Date Received:	19-Feb-2026	
		Date Reported:	26-Feb-2026	
		Quote No:	81087	
		Order No:		
		Client Reference:	A035680020	
		Submitted By:	Jessica Campbell	

Sample Type: Soil				
Sample Name:		SS04_0.0 18-Feb-2026	SS05_0.0 18-Feb-2026	
Lab Number:		4105834.6	4105834.8	
Asbestos Presence / Absence		Asbestos NOT detected.	Asbestos NOT detected.	
Description of Asbestos Form		-	-	
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	< 0.001	
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	< 0.001	
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	< 0.001	
As Received Weight	g	417.7	232.8	
Dry Weight	g	261.6	81.6	
Moisture*	%	37	65	
Sample Fraction >10mm	g dry wt	0.5	2.6	
Sample Fraction <10mm to >2mm	g dry wt	121.5	13.8	
Sample Fraction <2mm	g dry wt	138.3	65.0	
<2mm Subsample Weight	g dry wt	50.2	51.2	
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	< 0.00001	
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	< 0.00001	
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	< 0.00001	

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	6, 8
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	6, 8
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	6, 8
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	6, 8
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	6, 8
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	6, 8
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	6, 8
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	6, 8
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	6, 8
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	6, 8
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	6, 8
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	6, 8
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	6, 8
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	6, 8
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	6, 8

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed on 26-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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John Keneth Paglingayan BAPSc
Laboratory Technician - Asbestos

Lab No: 4105834-A2Pv1

Hill Labs

Page 2 of 2

Request for Analyses

Job No: _____ Date Recd: 19-Feb-26 17:14

410 5838

Received by: Darryl Brown

From: Pattle Delamore Partners Ltd

Office: ☐ Auckland ☐ Hamilton ☐ Tauranga ☒ Wellington ☐ Christchurch ☐ Invercargill

Submitted by: J Campbell

Ph No.:

To: file

Quote No.:

PDP Job No.: ~~600~~ 71035680020

3 14 105838

Chain of Custody Record

Additional Information

Sent:

Name: J Campbell

Signature:

Date and time: 18/2/26

Received: ☐ Room temp. ☐ Chilled Temp.: ____°C
☐ Frozen

Name:

Signature:

Date and time:

Analysis
via
email

Results to: ☐ lab.samples@pdp.co.nz

 Email submitter:

 Email other:

Priority: ☐ Normal ☐ High ☐ Urgent

Results required by: / /

Invoice to: ☐ PDP

☐ Other:

Sample ID	Date	Time	Sample type	Analyses Requested	Notes
SS01-0.0	18/2		S	Hold Cold	
SS01-0.3					
SS02-0.0					
SS02-0.3					
SS03-0.0					
SS03-0.3					
SS04-0.0					
SS04-0.3					
SS05-0.0					
SS05-0.3					
SS06-0.0					
SS06-0.3					

Sample type:	S Soil	GW Groundwater	SAL Saline	FW Freshwater	GEO Geothermal	SW Stormwater
	SED Sediment	BIO Biota	WW Wastewater	P Potable	0 Other:	

For physical address see www.pdp.co.nz

Note: Samples may contain dangerous or hazardous substances

Page of

PDP Auckland
Tel: +64 9 523 6900

PDP Hamilton
Tel: +64 7 949 7880

PDP Tauranga
Tel: +64 7 985 6440

PDP Wellington
Tel: +64 4 471 4130

PDP Christchurch
Tel: +64 3 345 7100

PDP Invercargill
Tel: +64 3 422 1690

Job Information Summary

Page 1 of 1

Client:	Pattle Delamore Partners Limited	Lab No:	4105838
Contact:	Melody Robyns	Date Registered:	19-Feb-2026 5:15 pm
	C/- Pattle Delamore Partners Limited	Priority:	High
	PO Box 6136	Quote No:	81087
	Wellington 6141	Order No:	
		Client Reference:	A035680020
		Add. Client Ref:	
		Submitted By:	Jessica Campbell
		Charge To:	Pattle Delamore Partners Limited
		Target Date*:	25-Feb-2026 4:30 pm

* As the samples require analysis at a Hill Labs location that is different to where they were received, the Target Date for reporting has been extended

Samples

No	Sample Name	Sample Type	Containers	Tests Requested
1	SS01 Bulk 18 Feb 2026	Building Material	cpBag	Asbestos in Bulk Material

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Building Material			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Bulk Material			
Sample Category	Assessment of sample type. Analysed at Hill Laboratories - Asbestos; 204 Thorndon Quay, Wellington.	-	1
Sample Weight on receipt	Sample weight (approximate). Analysed at Hill Laboratories - Asbestos; 204 Thorndon Quay, Wellington.	0.01 g	1
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 204 Thorndon Quay, Wellington. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1
Description of Asbestos in Non Homogeneous Samples	Form, dimensions and/or weight of asbestos fibres present. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	-	1

Certificate of Analysis

Page 1 of 2

Client:	Pattle Delamore Partners Limited	Lab No:	4105838	A2Pv1
Contact:	Melody Robyns	Date Received:	19-Feb-2026	
	C/- Pattle Delamore Partners Limited	Date Reported:	25-Feb-2026	
	PO Box 6136	Quote No:	81087	
	Wellington 6141	Order No:		
		Client Reference:	A035680020	
		Submitted By:	Jessica Campbell	

Sample Type: Building Material

Sample Name	Lab Number	Sample Category*	Sample Weight on receipt (g)	Asbestos Presence / Absence	Description of Asbestos in Non Homogeneous Samples
SS01 Bulk 18-Feb-2026	4105838.1	Paper	166.77	Asbestos NOT detected. Organic fibres detected.	N/A

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
 - ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
 - Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
 - Trace - Trace levels of asbestos, as defined by AS4964-2004.
- For further details, please contact the Asbestos Team.

Analyst's Comments

Due to excessive sample size a representative sub sample was prepared from the original sample for laboratory testing.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Building Material

Test	Method Description	Default Detection Limit	Sample No
Asbestos in Bulk Material			
Sample Category*	Assessment of sample type. Analysed at Hill Laboratories - Asbestos; 204 Thorndon Quay, Wellington.	-	1
Sample Weight on receipt	Sample weight (approximate). Analysed at Hill Laboratories - Asbestos; 204 Thorndon Quay, Wellington.	0.01 g	1
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 204 Thorndon Quay, Wellington. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	1
Description of Asbestos in Non Homogeneous Samples	Form, dimensions and/or weight of asbestos fibres present. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	-	1



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 24-Feb-2026 and 25-Feb-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.



Kelsey Rohloff BSc
Laboratory Technician - Asbestos



PATTLE DELAMORE PARTNERS LTD

Request for Analyses

NOTE: Please acknowledge receipt of these samples by signing this form and emailing to submitter.

From: Pattle Delamore Partners Ltd

To: Hill LabsOffice: ☐ Auckland ☐ Hamilton ☐ Tauranga ☒ Wellington ☐ Christchurch ☐ Invercargill

Quote No.:

Submitted by: J Campbell

Ph No.:

PDP Job No.: A035680020

Chain of Custody Record

Additional Information

Sent:

Name: J Campbell

Signature:

Date and time:

Received: ☐ Room temp. ☐ Chilled Temp.: ____°C☐ Frozen

Name:

Signature:

Date and time:

Results to:

☐ lab.samples@pdp.co.nz☒ Email submitter: ☒ Email other: Priority: ☐ Normal ☐ High ☐ Urgent

Results required by: ____ / ____ / ____

Invoice to:

☐ PDP☐ Other:

Sample ID	Date	Time	Sample type	Analyses Requested	Notes
SS03a-0.05	3/3/26		S		
SS03a-0.3					
SS03a-0.5					
SS03b-0.05					
SS03b-0.3					
SS03b-0.5					
SS03c-0.05					
SS03c-0.3					
SS03c-0.5					
SS03-0.5					
SS07-0.05					
SS07-0.3					
SS07-0.5					
SS08a-0.05					
SS08a-0.3					
SS08a-0.5					
SS08b-0.05					
SS08b-0.3					
SS08b-0.5					
SS08c-0.3					
SS08d-0.05					
SS08d-0.3					

SP

12.1



W Groundwater

SAL Saline

FW Freshwater

GEO Geothermal

SW Stormwater

O Biota

WW Wastewater

P Potable

O Other:

Received by: Nathaniel Sue

Note: Samples may contain dangerous or hazardous substances

Page ____ of ____

PI 4121793

Te 9 7880

PDP Tauranga
Tel: +64 7 985 6440PDP Wellington
Tel: +64 4 471 4130PDP Christchurch
Tel: +64 3 345 7100PDP Invercargill
Tel: +64 3 422 1690

Date Recv: 06-Mar-26 06:25



PATTLE DELAMORE PARTNERS LTD

Request for Analyses

NOTE: Please acknowledge receipt of these samples by signing this form and emailing to submitter.

From: Pattle Delamore Partners Ltd

To: Hill Labs

Office: ☐ Auckland ☐ Hamilton ☐ Tauranga ☒ Wellington ☐ Christchurch ☐ Invercargill

Quote No.:

Submitted by: J Campbell

Ph No.:

PDP Job No.: A035680020

Chain of Custody Record

Additional Information

Sent:	Received: ☐ Room temp. ☐ Chilled Temp.: ____ °C ☐ Frozen
Name: J Campbell	Name: _____
Signature: _____	Signature: _____
Date and time: 3/3/26	Date and time: _____

Asbestos
samplesResults to: ☐ lab.samples@pdp.co.nz☒ Email submitter: _____☒ Email other: _____Priority: ☐ Normal ☐ High ☐ Urgent

Results required by: ____ / ____ / ____

Invoice to: ☐ PDP ☐ Other: _____

Sample ID	Date	Time	Sample type	Analyses Requested	Notes
SS03a - 0.05	3/3/26		S		
SS03b - 0.05					
SS03c - 0.05					
SS04a - 0.05					
SS04b - 0.05					
SS04c - 0.05					
SS04d - 0.05					
SS07 - 0.05					
SS07 - 0.3					
SS08a - 0.05					
SS08b - 0.05					
SS08c - 0.05					
SS08d - 0.05					
SS06a - 0.05					
SS06b - 0.05					
SS06c - 0.05					
SS05a - 0.05					
SS05b - 0.05					
SS05c - 0.05					
SS05d - 0.05					

GW Groundwater

SAL Saline

FW Freshwater

GEO Geothermal

SW Stormwater

BIO Biota

WW Wastewater

P Potable

O Other: _____

**NOTE: Please acknowledge . . .
of these samples by signing this
form and emailing to submitter.**

To: Plus Cab

Quote No.:

PDP Job No.: A035680020

Additional Information

Invoice to: ☐ PDP ☐ Other:

GW Groundwater	SAL Saline	FW Freshwater	GEO Geothermal	SW Stormwater
BIO Biota	WW Wastewater	P Potable	O Other:	

Page of

PDP Invercargill
Tel: +64 3 422 1690

Request for Analyses

NOTE: Please acknowledge receipt of these samples by signing this form and emailing to submitter.

From: Pattle Delamore Partners Ltd

Office: ☐ Auckland ☐ Hamilton ☐ Tauranga ☒ Wellington ☐ Christchurch ☐ Invercargill

Submitted by: Jes C Ph No.:

To: Hill Class

Quote No.: _____

PDP Job No.: 1035680070

Chain of Custody Record

Additional Information

Sent:

Name: Jess C

Signature: _____

Date and time: 3/3/16

Received: ☐ Room temp. ☐ Chilled Temp.: ____°C
☐ Frozen

Name: _____

Signature: _____

Date and time: _____

Results to: ☐ lab.samples@pdp.co.nz

☒ Email submitter:

☒ Email other: _____

Priority: ☐ Normal ☐ High ☐ Urgent

Results required by: / /

Invoice to: ☐ PDP ☐ Other:

[illegible]

GW Groundwater

SAL Saline

FW Freshwater

GEO Geothermal

SW Stormwater

BIO Biota

WW Wastewater

P Potable

0 Other:

1. NZ

Note: Samples may contain dangerous or hazardous substances

Page of

ilton
949 7880

PDP Tauranga
Tel: +64 7 985 6440

PDP Wellington
Tel: +64 4 471 4130

PDP Christchurch
Tel: +64 3 345 7100

PDP Invercargill
Tel: +64 3 422 1690

Job Information Summary

Page 1 of 2

Client:	Pattle Delamore Partners Limited	Lab No:	4121793
Contact:	Melody Robyns	Date Registered:	06-Mar-2026 2:03 pm
	C/- Pattle Delamore Partners Limited	Priority:	High
	PO Box 6136	Quote No:	81087
	Wellington 6141	Order No:	
		Client Reference:	A035680020
		Add. Client Ref:	
		Submitted By:	Jessica Campbell
		Charge To:	Pattle Delamore Partners Limited
		Target Date:	10-Mar-2026 4:30 pm

Samples

No	Sample Name	Sample Type	Containers	Tests Requested
1	SS03_0.5 03-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
2	SS03a_0.05 03-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
3	SS03a_0.3 03-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
4	SS03a_0.5 03-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
5	SS03b_0.05 03-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
6	SS03b_0.3 03-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
7	SS03b_0.5 03-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
8	SS03c_0.05 03-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
9	SS03c_0.3 03-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
10	SS03c_0.5 03-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
11	SS04a_0.05 03-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
12	SS04a_0.3 03-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
13	SS04a_0.5 03-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
14	SS04b_0.05 03-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
15	SS04b_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
16	SS04b_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
17	SS04c_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
18	SS04c_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
19	SS04c_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
20	SS04d_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
21	SS04d_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
22	SS04d_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
23	SS05a_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
24	SS05a_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
25	SS05a_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
26	SS05b_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
27	SS05b_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
28	SS05b_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
29	SS05c_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
30	SS05c_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
31	SS05c_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
32	SS05d_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
33	SS05d_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
34	SS05d_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
35	SS06a_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
36	SS06a_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
37	SS06a_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold

Samples				
No	Sample Name	Sample Type	Containers	Tests Requested
38	SS06b_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
39	SS06b_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
40	SS06b_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
41	SS06c_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
42	SS06c_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
43	SS07_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
44	SS07_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
45	SS07_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
46	SS08a_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
47	SS08a_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
48	SS08a_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
49	SS08b_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
50	SS08b_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
51	SS08b_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
52	SS08c_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Heavy Metals, Screen Level
53	SS08c_0.45 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
54	SS08c_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
55	SS08d_0.05 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
56	SS08d_0.3 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold
57	SS08d_0.5 04-Mar-2026	Soil	GSoil300, GSoil300	Hold Cold

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Environmental Solids Sample Drying	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1 3, 5, 8, 11 12, 14, 17, 23-24, 26, 29, 35 36, 38, 41, 43-47, 49, 52
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1 3, 5, 8, 11 12, 14, 17, 23-24, 26, 29, 35 36, 38, 41, 43-47, 49, 52

Certificate of Analysis

Page 1 of 2

Client:	Pattle Delamore Partners Limited	Lab No:	4121793	SPv3
Contact:	Melody Robyns	Date Received:	06-Mar-2026	
	C/- Pattle Delamore Partners Limited	Date Reported:	17-Mar-2026	(Amended)
	PO Box 6136	Quote No:	81087	
	Wellington 6141	Order No:		
		Client Reference:	A035680020	
		Submitted By:	Jessica Campbell	

Sample Type: Soil

Sample Name:	SS03_0.5 04-Mar-2026	SS03a_0.05 04-Mar-2026	SS03a_0.3 04-Mar-2026	SS03b_0.05 04-Mar-2026	SS03c_0.05 04-Mar-2026
Lab Number:	4121793.1	4121793.2	4121793.3	4121793.5	4121793.8

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	4	3	2	4	3
Total Recoverable Cadmium	mg/kg dry wt	3.5	1.01	0.27	0.86	0.33
Total Recoverable Chromium	mg/kg dry wt	16	14	13	74	13
Total Recoverable Copper	mg/kg dry wt	35	43	12	24	29
Total Recoverable Lead	mg/kg dry wt	350	230	41	220	46
Total Recoverable Nickel	mg/kg dry wt	18	10	7	42	7
Total Recoverable Zinc	mg/kg dry wt	1,520	480	182	350	150

Sample Name:	SS04a_0.05 04-Mar-2026	SS04a_0.3 04-Mar-2026	SS04b_0.05 04-Mar-2026	SS04c_0.05 04-Mar-2026	SS05a_0.05 04-Mar-2026
Lab Number:	4121793.11	4121793.12	4121793.14	4121793.17	4121793.23

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	3	3	2	3	5
Total Recoverable Cadmium	mg/kg dry wt	0.54	0.22	0.26	0.20	0.46
Total Recoverable Chromium	mg/kg dry wt	12	13	14	13	19
Total Recoverable Copper	mg/kg dry wt	9	8	8	8	13
Total Recoverable Lead	mg/kg dry wt	23	16.9	19.0	22	210
Total Recoverable Nickel	mg/kg dry wt	7	6	7	6	11
Total Recoverable Zinc	mg/kg dry wt	340	162	180	107	270

Sample Name:	SS05a_0.3 04-Mar-2026	SS05b_0.05 04-Mar-2026	SS05c_0.05 04-Mar-2026	SS06a_0.05 04-Mar-2026	SS06a_0.3 04-Mar-2026
Lab Number:	4121793.24	4121793.26	4121793.29	4121793.35	4121793.36

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	5	5	3	3	3
Total Recoverable Cadmium	mg/kg dry wt	0.41	0.59	0.15	0.28	0.11
Total Recoverable Chromium	mg/kg dry wt	19	17	15	16	17
Total Recoverable Copper	mg/kg dry wt	13	14	9	43	24
Total Recoverable Lead	mg/kg dry wt	370	64	77	46	26
Total Recoverable Nickel	mg/kg dry wt	11	10	9	9	9
Total Recoverable Zinc	mg/kg dry wt	230	270	91	81	59

Sample Name:	SS06b_0.05 04-Mar-2026	SS06c_0.05 04-Mar-2026	SS07_0.05 04-Mar-2026	SS07_0.3 04-Mar-2026	SS07_0.5 04-Mar-2026
Lab Number:	4121793.38	4121793.41	4121793.43	4121793.44	4121793.45

Heavy Metals, Screen Level

Total Recoverable Arsenic	mg/kg dry wt	3	5	2	3	3
Total Recoverable Cadmium	mg/kg dry wt	0.25	0.27	1.85	2.4	1.47
Total Recoverable Chromium	mg/kg dry wt	15	21	11	13	16
Total Recoverable Copper	mg/kg dry wt	21	11	10	16	14



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

Sample Type: Soil						
Sample Name:		SS06b_0.05 04-Mar-2026	SS06c_0.05 04-Mar-2026	SS07_0.05 04-Mar-2026	SS07_0.3 04-Mar-2026	SS07_0.5 04-Mar-2026
Lab Number:		4121793.38	4121793.41	4121793.43	4121793.44	4121793.45
Heavy Metals, Screen Level						
Total Recoverable Lead	mg/kg dry wt	30	29	74	113	72
Total Recoverable Nickel	mg/kg dry wt	10	11	9	16	17
Total Recoverable Zinc	mg/kg dry wt	71	177	890	1,030	920
Sample Name:		SS08a_0.05 04-Mar-2026	SS08a_0.3 04-Mar-2026	SS08b_0.05 04-Mar-2026	SS08c_0.05 04-Mar-2026	
Lab Number:		4121793.46	4121793.47	4121793.49	4121793.52	
Heavy Metals, Screen Level						
Total Recoverable Arsenic	mg/kg dry wt	3	2	2	3	
Total Recoverable Cadmium	mg/kg dry wt	2.3	0.53	1.32	0.24	
Total Recoverable Chromium	mg/kg dry wt	11	13	11	13	
Total Recoverable Copper	mg/kg dry wt	18	7	8	6	
Total Recoverable Lead	mg/kg dry wt	25	16.4	24	33	
Total Recoverable Nickel	mg/kg dry wt	7	7	6	7	
Total Recoverable Zinc	mg/kg dry wt	1,570	410	1,210	230	

Analyst's Comments

Amended Report: This certificate of analysis replaces report '4121793-SPv2' issued on 10-Mar-2026 at 4:14 pm.
Reason for amendment: Some dates amended.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed).	-	1-3, 5, 8, 11-12, 14, 17, 23-24, 26, 29, 35-36, 38, 41, 43-47, 49, 52
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion. Complies with NES Regulations. ICP-MS screen level, interference removal by Kinetic Energy Discrimination if required. US EPA 200.2 (modified), APHA 3125 B: Online Edition.	0.10 - 4 mg/kg dry wt	1-3, 5, 8, 11-12, 14, 17, 23-24, 26, 29, 35-36, 38, 41, 43-47, 49, 52
SPLP Profile	Extraction at 30 +/- 2 rpm for 18 +/- 2 hours, (Ratio 1g sample : 20g extraction fluid). US EPA 1312.	-	1-2, 24

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 07-Mar-2026 and 10-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Client Services Manager - Environmental



PATTLE DELAMORE PARTNERS LTD

Request for Analyses

NOTE: Please acknowledge receipt of these samples by signing this form and emailing to submitter.

From: Pattle Delamore Partners Ltd

To: Hill Labs

Office: ☐ Auckland ☐ Hamilton ☐ Tauranga ☒ Wellington ☐ Christchurch ☐ Invercargill

Quote No.:

Submitted by: J Campbell

Ph No.:

PDP Job No.: A035680020

Chain of Custody Record

Additional Information

Sent:

Name: J Campbell

Signature:

Date and time:

Received: ☐ Room temp. ☐ Chilled Temp.: ____ °C
☐ Frozen

Name:

Signature:

Date and time:

Results to:

☐ lab.samples@pdp.co.nz☒ Email submitter:☒ Email other:Priority: ☐ Normal ☐ High ☐ Urgent

Results required by: ____ / ____ / ____

Invoice to:

☐ PDP☐ Other:

Sample ID	Date	Time	Sample type	Analyses Requested	Notes
SS03a-0.05	3/3/26		S		
SS03a-0.3					
SS03a-0.5					
SS03b-0.05					
SS03b-0.3					
SS03b-0.5					
SS03c-0.05					
SS03c-0.3					
SS03c-0.5					
SS03-0.5					
SS07-0.05					
SS07-0.3					
SS07-0.5					
SS08a-0.05					
SS08a-0.3					
SS08a-0.5					
SS08b-0.05					
SS08b-0.3					
SS08b-0.5					
SS08c-0.3					
SS08d-0.05					
SS08d-0.3					

SP

3141230167

W Groundwater

SAL Saline

FW Freshwater

GEO Geothermal

SW Stormwater

O Biota

WW Wastewater

P Potable

O Other:

Received by: Gabriel Hazard

Note: Samples may contain dangerous or hazardous substances

Page ____ of ____

412 3016

Job No: 9 7880

PDP Tauranga
Tel: +64 7 985 6440PDP Wellington
Tel: +64 4 471 4130PDP Christchurch
Tel: +64 3 345 7100PDP Invercargill
Tel: +64 3 422 1690

Date Recv: 06-Mar-26 14:03



PATTLE DELAMORE PARTNERS LTD

Request for Analyses

NOTE: Please acknowledge receipt of these samples by signing this form and emailing to submitter.

From: Pattle Delamore Partners Ltd

To: Hill Labs

Office: ☐ Auckland ☐ Hamilton ☐ Tauranga ☒ Wellington ☐ Christchurch ☐ Invercargill

Quote No.:

Submitted by: J Campbell

Ph No:

PDP Job No.: A035680020

Chain of Custody Record

Additional Information

Sent:

Name: J Campbell

Signature:

Date and time: 3/3/26

Received: ☐ Room temp. ☐ Chilled Temp.: °C☐ Frozen

Name:

Signature:

Date and time:

Asbestos
samples

Results to:

☐ lab.samples@pdp.co.nz☒ Email submitter:

@pdp.co.nz

☒ Email other:

@pdp.co.nz

Priority: ☐ Normal ☐ High ☐ Urgent

Results required by: / /

Invoice to:

☐ PDP☐ Other:

Sample ID	Date	Time	Sample type	Analyses Requested	Notes
SS03a-0.05	3/3/26		S		
SS03b-0.05					
SS03c-0.05					
SS04a-0.05					
SS04b-0.05					
SS04c-0.05					
SS04d-0.05					
SS07-0.05					
SS07-0.3					
SS08a-0.05					
SS08b-0.05					
SS08c-0.05					
SS08d-0.05					
SS06a-0.05					
SS06b-0.05					
SS06c-0.05					
SS05a-0.05					
SS05b-0.05					
SS05c-0.05					
SS05d-0.05					

SW Groundwater

SAL Saline

FW Freshwater

GEO Geothermal

SW Stormwater

BIO Biota

WW Wastewater

P Potable

O Other:

12

Note: Samples may contain dangerous or hazardous substances

Page ___ of ___

PDP Tauranga
949 7880PDP Wellington
Tel: +64 7 985 6440PDP Christchurch
Tel: +64 4 471 4130PDP Invercargill
Tel: +64 3 345 7100PDP Invercargill
Tel: +64 3 422 1690



**NOTE: Please acknowledge . . .
of these samples by signing this
form and emailing to submitter.**

PDP Job No.: A035680020

[illegible]

Note: Samples may contain dangerous or hazardous substances

Page ____ of ____

Ition	PDP Tauranga	PDP Wellington	PDP Christchurch	PDP Invercargill
949 7880	Tel: +64 7 985 6440	Tel: +64 4 471 4130	Tel: +64 3 345 7100	Tel: +64 3 422 1690

Request for Analyses

NOTE: Please acknowledge receipt of these samples by signing this form and emailing to submitter.

From: Pattle Delamore Partners Ltd

To: Hill Labs

Office: ☐ Auckland ☐ Hamilton ☐ Tauranga ☒ Wellington ☐ Christchurch ☐ Invercargill

Quote No.: _____

Submitted by: Jes C Ph No.: [REDACTED]

PDP Job No.: 1035680070

Chain of Custody Record

Additional Information

Sent:

Name: Jess C

Signature: _____

Date and time: 313 126

Received: ☐ Room temp. ☐ Chilled Temp.: ____°C
☐ Frozen

Name: _____

Signature: _____

Date and time: _____

Results to: ☐ lab.samples@pdp.co.nz

☒ Email submitter:

☒ Email other:

Priority: ☐ Normal ☐ High ☐ Urgent

Results required by: / /

Invoice to: ☐ PDP ☐ Other:

[illegible]

GW Groundwater

SAL Saline

FW Freshwater

GEO Geothermal

SW Stormwater

BIO Biota

WW Wastewater

P Potable

0 Other:

l.nz

Note: Samples may contain dangerous or hazardous substances

Page of

ilton
949 7880

PDP Tauranga
Tel: +64 7 985 6440

PDP Wellington
Tel: +64 4 471 4130

PDP Christchurch
Tel: +64 3 345 7100

PDP Invercargill
Tel: +64 3 422 1690

Job Information Summary

Page 1 of 2

Client:	Pattle Delamore Partners Limited	Lab No:	4123016
Contact:	Melody Robyns	Date Registered:	06-Mar-2026 2:46 pm
	C/- Pattle Delamore Partners Limited	Priority:	High
	PO Box 6136	Quote No:	81087
	Wellington 6141	Order No:	
		Client Reference:	A035680020
		Add. Client Ref:	
		Submitted By:	Jessica Campbell
		Charge To:	Pattle Delamore Partners Limited
		Target Date*:	11-Mar-2026 4:30 pm

* As the samples require analysis at a Hill Labs location that is different to where they were received, the Target Date for reporting has been extended

Samples

No	Sample Name	Sample Type	Containers	Tests Requested
1	SS03a 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
2	SS03b 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
3	SS03c 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
4	SS04a 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
5	SS04b 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
6	SS04c 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
7	SS04d_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold
8	SS05a_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold
9	SS05b_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold
10	SS05c_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold
11	SS05d_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold
12	SS06a_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold
13	SS06b_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold
14	SS06c 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
15	SS07 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
16	SS07 0 3 04 Mar 2026	Soil	PSoil500Asb	New Zealand Guidelines Semi Quantitative Asbestos in Soil
17	SS08a 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
18	SS08b 0 05 04 Mar 2026	Soil	PSoil500Asb	Hold Cold
19	SS08c_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold
20	SS08d_0.05 04-Mar-2026	Soil	PSoil500Asb	Hold Cold

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	16
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	16
Moisture	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	16
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	16

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	16
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	16
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	16
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	16
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	16
Asbestos in ACM as % of Total Sample	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	16
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	16
Asbestos as Fibrous Asbestos as % of Total Sample	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	16
Weight of Asbestos as Asbestos Fines (Friable)	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	16
Asbestos as Asbestos Fines as % of Total Sample	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	16
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	16

Certificate of Analysis

Page 1 of 2

Client:	Pattle Delamore Partners Limited	Lab No:	4123016	A2Pv1
Contact:	Melody Robyns C/- Pattle Delamore Partners Limited PO Box 6136 Wellington 6141	Date Received:	06-Mar-2026	
		Date Reported:	10-Mar-2026	
		Quote No:	81087	
		Order No:		
		Client Reference:	A035680020	
		Submitted By:	Jessica Campbell	

Sample Type: Soil			
Sample Name:		SS07_0.3 04-Mar-2026	
Lab Number:		4123016.16	
Asbestos Presence / Absence		Asbestos NOT detected.	
Description of Asbestos Form		-	
Asbestos in ACM as % of Total Sample*	% w/w	< 0.001	
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	% w/w	< 0.001	
Asbestos as Fibrous Asbestos as % of Total Sample*	% w/w	< 0.001	
Asbestos as Asbestos Fines as % of Total Sample*	% w/w	< 0.001	
As Received Weight	g	472.6	
Dry Weight	g	296.3	
Moisture*	%	37	
Sample Fraction >10mm	g dry wt	16.6	
Sample Fraction <10mm to >2mm	g dry wt	120.2	
Sample Fraction <2mm	g dry wt	159.0	
<2mm Subsample Weight	g dry wt	52.2	
Weight of Asbestos in ACM (Non-Friable)	g dry wt	< 0.00001	
Weight of Asbestos as Fibrous Asbestos (Friable)	g dry wt	< 0.00001	
Weight of Asbestos as Asbestos Fines (Friable)*	g dry wt	< 0.00001	

Glossary of Terms

- Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.
- ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM.
- Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required.
- Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Please refer to the **BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.**
<https://www.branz.co.nz/asbestos>

The following assumptions have been made:

1. Asbestos Fines in the <2mm fraction, after homogenisation, is evenly distributed throughout the fraction
2. The weight of asbestos in the sample is unaffected by the ashing process.

Results are representative of the sample provided to Hill Laboratories only.



This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
New Zealand Guidelines Semi Quantitative Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	16
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g	16
Moisture*	Sample dried at 100 to 105°C. Calculation = (As received weight - Dry weight) / as received weight x 100.	1 %	16
Sample Fraction >10mm	Sample dried at 100 to 105°C, 10mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	16
Sample Fraction <10mm to >2mm	Sample dried at 100 to 105°C, 10mm and 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	16
Sample Fraction <2mm	Sample dried at 100 to 105°C, 2mm sieve, measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch.	0.1 g dry wt	16
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	16
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	16
Weight of Asbestos in ACM (Non-Friable)	Measurement on analytical balance, from the >10mm Fraction. Weight of asbestos based on assessment of ACM form. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	16
Asbestos in ACM as % of Total Sample*	Calculated from weight of asbestos in ACM and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	16
Weight of Asbestos as Fibrous Asbestos (Friable)	Measurement on analytical balance, from the >10mm Fraction. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	16
Asbestos as Fibrous Asbestos as % of Total Sample*	Calculated from weight of fibrous asbestos and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	16
Weight of Asbestos as Asbestos Fines (Friable)*	Measurement on analytical balance, from the <10mm Fractions. Analysed at Hill Laboratories - Asbestos; Unit 1, 17 Print Place, Middleton, Christchurch. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.00001 g dry wt	16
Asbestos as Asbestos Fines as % of Total Sample*	Calculated from weight of asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	16
Combined Fibrous Asbestos + Asbestos Fines as % of Total Sample*	Calculated from weight of fibrous asbestos plus asbestos fines and sample dry weight. New Zealand Guidelines for Assessing and Managing Asbestos in Soil, November 2017.	0.001 % w/w	16

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed on 10-Mar-2026. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

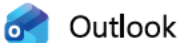
This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

John Keneth Paglingayan BAPSc
Laboratory Technician - Asbestos

Lab No: 4123016-A2Pv1

Hill Labs

Page 2 of 2



RE: Belmont Quarry FTAA - Draft Technical Assessments for GWRC

From Jessica Glover [REDACTED]
Date Mon 6/22/2026 3:12 PM
To Colin Hopkins [REDACTED]
Cc Andrew Banks [REDACTED] Brooke Dales [REDACTED]; Shalini Sanjeshni (Winstone Aggregates) [REDACTED]

1 attachment (181 KB)

June 2026 - GWRC-014-MEM-2026-BelmontEcologyFurtherFeedback-Rev0.cleaned - Melanie Dixon.pdf;

Kia ora Colin,

I hope you had a nice weekend.

A few more responses have come through on those memos:

- Please find attached Melanie's response to the Ecology Memo
- Please find pasted below Peter's response to the Air Quality Memo

Air quality comments

We have now reviewed the applicant's response to our comments. Overall, PDP has provided additional information which addresses several of the matters we raised, and there are a number of areas where we agree with the responses provided. However, while PDP has responded to the matters raised, AQCENZ considers that some of the responses could benefit from further consideration of the issues identified in our original review. In several cases, the response outlines the basis for the approach adopted but does not fully address the rationale underpinning our recommendations or demonstrate why an alternative approach would not be warranted.

Our key observations are summarised below.

Meteorological Data

We agree with PDP's view that the Savage Park EWS is likely to be more representative of the broader terrain surrounding Belmont Quarry than the Lower Hutt EWS. However, we remain unconvinced that the assessment should rely on a relatively short meteorological dataset (22 July 2025 to 5 December 2025) when longer-term data are available.

While PDP has now provided a four-year Savage Park windrose and states that it is broadly consistent with the shorter-term dataset, the information provided does not allow a detailed comparison. For example, a corresponding frequency table has not been provided and the differing windrose scales make direct comparison difficult.

Accordingly, AQCENZ continues to recommend that the FIDOL assessment be updated using a longer-term representative meteorological dataset. We consider this would be more consistent with accepted good practice and would provide greater confidence that seasonal variability has been appropriately captured.

We also note PDP's explanation that local terrain may result in stronger winds being measured at the quarry than at Savage Park. While this explanation is plausible, it raises a further consideration that stronger on-site winds may increase the potential for dust generation and entrainment from quarry and overburden disposal activities.

Given that dust generation occurs at the quarry itself, AQCENZ remains of the view that the historical on-site meteorological dataset has value and should be given greater consideration within the assessment. The response provided suggests that the site experiences stronger winds than those measured at Savage Park, which may be relevant when considering dust generation potential.

AQCENZ considers that a comparison of the Lower Hutt and Savage Park datasets, including windroses and frequency tables for both locations, should be provided to allow Council to fully understand the differences between the datasets and the basis for selecting Savage Park as the preferred meteorological dataset.

Complaint History

Thank you for providing the additional information regarding the complaint history associated with both the existing OBDA and the wider quarry operations.

The information indicates that no dust complaints have been specifically attributed to the Cottle Block OBDA activities. However, AQCENZ notes that the overburden disposal activities and the wider quarry operations form part of the same overall operation and can generate similar dust emissions. As such, it may not always be possible for members of the public or Council officers to distinguish the specific source of a dust event.

Given this, AQCENZ considers that complaints recorded against the quarry operation may potentially have been influenced, at least in part, by overburden disposal activities occurring at the time.

AQCENZ notes that the available information does not provide sufficient detail to determine whether the historic complaints were more likely associated with quarry operations, overburden disposal activities, or another source within the area. Additional information regarding the approximate location of the complaints and the activities occurring on site at the time would assist in resolving this uncertainty.

Notwithstanding the above, the information provided by PDP indicates that only two dust-related complaints have been recorded over approximately nine years. On that basis, AQCENZ agrees with PDP that the available complaint history does not indicate a pattern of significant or persistent off-site dust effects.

Cumulative Effects

AQCENZ agrees with PDP's assessment that cumulative dust effects from other identified sources are likely to be limited given the separation distances involved and the location of the relevant receptors.

Scale of Activities and Mitigation

The additional information clarifying that active overburden disposal areas will generally be less than approximately 2 ha at any one time is helpful and addresses one of our key concerns regarding the scale of exposed surfaces.

AQCENZ considers that active areas of this scale are capable of being effectively managed from a dust perspective provided appropriate mitigation measures are implemented. However, we note that the mitigation measures described in Section 5 of the assessment remain relatively high level and lack specific detail.

Given the scale of the proposed activity and the reliance on operational controls to manage dust effects, AQCENZ considers that additional detail regarding the proposed dust management measures

should be provided to support the assessment. A Dust Management Plan and clearly defined mitigation requirements would provide greater certainty regarding how potential effects will be avoided or minimised.

Dust Travel Distances and Topography

AQCNZ generally agrees with PDP's response regarding the influence of topography on dust transport. However, given the complexity of the terrain surrounding the site, AQCNZ considers that additional contour and elevation information should be provided to support the conclusions reached regarding dust transport and receptor exposure. This information would assist in understanding the relationship between the proposed OBDA and surrounding sensitive receptors.

Dust Monitoring and Historical Campaign Data

We acknowledge PDP's responses regarding the monitoring programme and the comparison with previous overburden disposal campaigns.

We note that the background monitoring undertaken between July and December 2025 reflects the influence of existing quarry operations and surrounding activities, rather than active overburden disposal at the proposed OBDA.

However, AQCNZ does not agree that reliance on a single historical overburden campaign (Season 7) provides a sufficiently robust basis for comparison. Limited information has been provided regarding the operational scale, disposal locations, meteorological conditions, or whether Season 7 was representative of typical overburden operations.

In our view, where historical monitoring data are available, it would be preferable to present results from multiple campaigns to demonstrate that Season 7 is representative rather than anomalous.

We also note that the polar plots presented for Seasons 6 and 7 appear to show materially higher concentrations during Season 6 than Season 7. This suggests that Season 7 may not necessarily represent a conservative or typical operating scenario.

AQCNZ considers that the monitoring results should be assessed against the Ministry for the Environment nuisance dust guideline values, including a summary of the frequency and magnitude of any exceedances. This would provide important context regarding the significance of the measured concentrations and assist in determining whether elevated values represent isolated events or more typical operating conditions.

FIDOL Assessment

For the reasons outlined above, AQCNZ maintains its view that the FIDOL assessment should be updated using a representative long-term meteorological dataset. While PDP considers that the overall conclusions are unlikely to change materially, AQCNZ considers that the current assessment does not adequately demonstrate that the frequency component reflects long-term meteorological conditions.

Overall, we consider that the assessment has been strengthened through the additional information provided. However, AQCNZ considers that the matters outlined above remain important outstanding issues and should be addressed, or their implications clearly acknowledged, before Council can be fully satisfied that the assessment provides a robust basis for evaluating potential air quality effects.

Ngā mihi

Jessica Glover

Kaitohutohu | Resource Advisor, Environmental Regulation
Greater Wellington Te Pane Matua Taiao

100 Cuba St, Te Aro, Wellington 6011

Follow us online: [Facebook](#) | [Twitter](#) | [gw.govt.nz](#)

From: Colin Hopkins [REDACTED]
Sent: Friday, 12 June 2026 1:52 pm
To: Jessica Glover <[REDACTED]>
Cc: Andrew Banks <[REDACTED]>; Brooke Dales <[REDACTED]>; Shalini Sanjeshni (Winstone Aggregates) <[REDACTED]>
Subject: Re: Belmont Quarry FTAA - Draft Technical Assessments for GWRC

Hi Jessica,

Thanks for your work collating the feedback on our draft specialist reports. Please see the links below for our responses to the Air Discharge, Ecology, and Hydrology feedback. We have also updated the contamination reports following the comments received, and copies of the revised reports are also available in the links below.

[\[Belmont Quarry - FTAA\] Hydrology Response to Council Comments.pdf](#)

[\[Belmont Quarry - FTAA\] Air Discharge Response to Council Comments.pdf](#)

[\[Belmont Quarry - FTAA\] Ecology Response to Council Comments.pdf](#)

[\[Belmont Quarry - FTAA\] PSI & DSI Updated following Council Comments.pdf](#)

[\[Belmont Quarry - FTAA\] Remedial Action Plan Updated following Council Comments.pdf](#)

I will forward Megan's comments on the ESC Report as soon as they come through.

We trust these responses address the queries arising from the review of the draft reports, and we welcome any further feedback. Our next step is to update the reports based on council feedback and input from our wider project team (including legal review). For Ecology, this will include finalising the offset calculation, and further discussions are underway with the GWRC Parks team regarding the preferred location. I note that copies of the Ecology and Contamination responses have also been provided to Stephen at Hutt City.

As discussed, one matter we would appreciate your further input on is the recommendation to install a piezometer within the wetland (within a PVC standpipe) to support ecological monitoring of the swamp mire wetland. My reading of the plan and the NES-FW is that this can be undertaken as a permitted activity, but I'd appreciate your view on this.

While the specialist assessments are being updated and finalised, the next step is to begin working through draft conditions. We look forward to discussing the process around this with you at our catch-up on Monday.

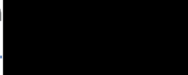
Cheers, Colin

Colin Hopkins, Planning Consultant (MPlanPrac)

a Unit 67 Victoria Park Market, 210-218 Victoria Street West, CBD

p PO Box 91247, Victoria Street West, Auckland 1142

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e  w www.dcs.gen.nz

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From: Colin Hopkins 
Sent: Thursday, June 4, 2026 8:46 AM
To: Jessica Glover 
Cc: Andrew Banks ; Brooke Dales ; Shalini Sanjeshni (Winstone Aggregates) 
Subject: Re: Belmont Quarry FTAA - Draft Technical Assessments for GWRC

Thanks for this Jessica.

We'll review and come back to you. We should have a response to the comments from your team on Ecology and Hydrology shortly, as well as updated Contamination reports.

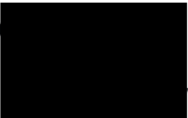
Cheers, Colin

Colin Hopkins, Planning Consultant (MPlanPrac)

a Unit 67 Victoria Park Market, 210-218 Victoria Street West, CBD

p PO Box 91247, Victoria Street West, Auckland 1142

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From: Jessica Glover 
Sent: Thursday, 4 June 2026 8:35 am



memorandum



TO	Shalini Sanjeshni, Colin Hopkins	FROM	Trevor Everett
	Winstone Aggregates	DATE	9 June 2026
RE	Review and response to GRWC comments for Belmont Quarry proposed OBDA		

1.0 Introduction

The Belmont Quarry (the Site), which is located in the Hutt Valley, has approximately 40 years of resource to be extracted based on current extraction rates. However, the current overburden disposal area (OBDA) is reaching capacity.

Pattle Delamore Partners limited (PDP) provided a draft air quality assessment (AQA) to Winstone Aggregates (Winstone) on the effects that establishing a new OBDA within an area of Belmont Regional Park (in conjunction with the current permitted air discharges from the Belmont Quarry) would have on the discharge to air. This AQA was sent to the Greater Wellington Regional Council (GWRC) so they could review it and provide any comments.

PDP have been engaged by Winstone to address GWRC's comments and provided further information that responds to matters that were raised.

2.0 Council Comment Responses

2.1 Meteorological Data

2.1.1 *Further justification is required for the use of the Savage Park EWS data in preference to the Lower Hutt EWS, which is located closer to the site.*

PDP used the Savage Park EWS because its location (close to the Blue Mountains ranges) and the narrower valley and terrain surrounding the Savage Park EWS is also more akin to the terrain at the site, as opposed to the Lower Hutt EWS which is in a much wider section of the valley.

Furthermore, the variation in wind characteristics between the two locations would not substantially alter the FIDOL assessment or impacts to the sensitive receptors. While the Lower Hutt EWS shows southerlies with higher wind speed, due to the proximity of R10 (the closest receptor) the speed of the wind does not significantly change times or likelihood of when this receptor could be impacted by dust.

While the use of the Lower Hutt EWS may change the frequency that certain receptors would be downwind of the site's activities, overall it would not make a significant difference to the assessment of the air quality effects.

As such PDP feels that the Savage Park EWS windrose is the best representation of meteorological conditions experienced on site.

2.1.2 *Given that the meteorological dataset is used to inform the FIDOL assessment, it is recommended that at least three years of representative data is used to capture seasonal variability.*

PDP agrees that capturing seasonal variability by using a longer time period would make the windrose dataset more robust and better represent the meteorological conditions experienced on site at any given time.

Figure 1 shows wind conditions observed at the Savage Park EWS for the four year period 2022 to 2025. This data shows similar patterns to those presented in the shorter term windrose used in the AQA (prevailing wind still comes from the northwest) with more variation and frequency in winds from the south. The similarities between this 2022-2025 windrose and the shorter term windrose in the AQA means that the FIDOL assessment would not significantly change if the updated windrose was used in its place.

Therefore, PDP considers that the existing FIDOL assessment in the AQA is adequate for assessing dust nuisance and does not need to be updated.

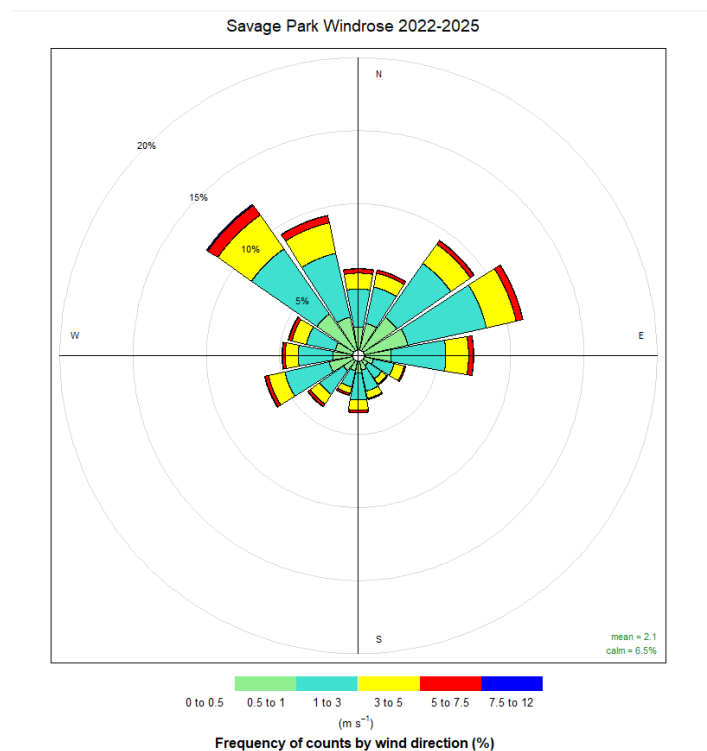


Figure 1: Savage Park EWS Windrose (January 2022 to December 2025)

- 2.1.3 *The report appropriately notes limitations with the on-site meteorological data due to low sensor height (~2 m) and local interference. However:*
- *The on-site data indicates a higher proportion of strong winds (>5 m/s) (~20.8%) compared to approximately 10% at Savage Park.*
 - *Given the low sensor height would typically under-represent wind speeds, this discrepancy requires further explanation*

PDP considers that the reason for the difference between the onsite data and the Savage Park EWS is due to the immediate topography. Where the onsite AWS is located, there is a valley which likely funnels the wind going across the Belmont Regional Park. This would explain the high winds observed by the onsite AWS despite its lower height and why the winds are mostly observed in one direction.

- 2.1.4 *AQCNZ understands that Winstone Aggregates has historically undertaken meteorological monitoring at Belmont Quarry. This dataset has not been utilised in the assessment. Given its proximity and potential to better represent site-specific conditions, justification should be provided for not adopting this dataset, or alternatively the closer Lower Hutt EWS, in preference to the Savage Park dataset.*

As mentioned before, the immediate topography affects the recorded meteorological conditions by the onsite AWS by causing wind to be funnelled through a neighbouring valley. This provides information that is helpful in its own regard, however it does not inform us of wider experienced meteorological conditions across the rest of the receiving environment.

The assessment of the meteorological conditions is in regard to the potential impact dust nuisance would have on the surrounding sensitive receptors which are not as impacted by the neighbouring valley as the onsite AWS is. While the higher wind speeds could provide a conservative assessment, the lack of variance in wind direction is not representative of the wider area, and means that using this data would potentially underestimate the potential for effects at some of the sensitive receptors and receiving environment.

- 2.1.5 *Overall, additional justification is required to demonstrate that the Savage Park dataset is representative of conditions influencing dust generation and transport at the site.*

In addition to the discussion above, Section 2.1.1 of this memo identifies the reasoning why the Savage Park dataset was chosen over the Lower Hutt EWS dataset.

2.2 Complaint History

- 2.2.1 *The report states that, to PDP's knowledge, there have been no formal dust complaints. It is recommended that this is verified directly with Greater Wellington Regional Council to confirm whether any complaints have been recorded.*

GWRC has provided some limited information on two dust related complaints under consent WGN140208 since 2016. The first occurred in December 2016, while the description to the nature of the complaint was not provided GWRC stated that Winstone provided an email pertaining to the measures implemented to manage the dust. The second occurred in February 2024, however the exact cause and measures implemented to mitigate are not provided by the GWRC.

PDP does not consider that these complaints are any cause for concern or indicate any consistently objectionable/offensive dust nuisance at or beyond the site boundary.

2.3 Consideration of Other Dust Sources and Cumulative Effects

2.3.1 *The assessment would benefit from identifying other potential dust sources in the surrounding area (if any).*

Another dust-generating source in the area would be some activities associated with the Firth Belmont Masonry. This is located close to Hebden Crescent at a significantly lower elevation than the proposed OBDA. Given this it is extremely unlikely that this activity would make any cumulative contribution to the most potentially affected receptor (R10). However, there is potential that it contributes to dust that might be near R7. Noting however that as Firth is more than 300 m from R7 and the proposed OBDA is more than 700 m away that any contribution at to dust at R7 is going to be minimal if anything.

In addition to this there is a Fulton Hogan Asphalt Plant and a Firth ready mix concrete supplier within the southern boundary of the site which have potential to contribute to dust. Like the Firth Belmont Masonry it is extremely unlikely to make any cumulative contribution to the most potentially affected receptor (R10). There is potential that these contribute to dust that might be near R5 and R6, however they are unlikely to cause a cumulative effect with OBDA activities given the separation of these receptors and associated activities.

2.3.2 *A more explicit cumulative effects assessment should be included, particularly considering:*

- *Existing quarry operations; and*
- *Any other local dust-generating activities*

It has briefly been explained in Section 4.0 of the draft AQA that onsite operations and potential generated dust nuisance will have cumulative effects on the dust impacts, but more detail of the existing activities can be provided.

Outside of OBDA activities, the site has the potential to generate dust from a number of activities including:

- ✧ Primary, secondary, and tertiary crushing and associated screening of greywacke from the fixed plant and mobile plants;
- ✧ Initial enabling works, including maintenance of the haul roads, construction of erosion and sediment controls, and construction of bunds;
- ✧ Material blasting, drilling, and excavation;
- ✧ Operation of vehicles on the haul roads;
- ✧ Wind erosion of working areas and stockpiles;
- ✧ Fill activities
- ✧ Product loading and transportation; and
- ✧ Rehabilitation of quarried areas.

In addition to on-site activities, dust can also be generated by winds blowing across dry, exposed surfaces. Winds greater than 5 m/s have the potential to dislodge particles from exposed surfaces and transport them downwind, creating the potential to cause nuisance effects off site.

Outside of the site's activities, operations from the nearby dust sources discussed in Section 2.3.1 will also impact the background concentrations observed in the receiving environment and sensitive receptors. Due to its location to the south and southwest of the site, this makes R5, R6 and R7 more susceptible to dust events.

While these activities were not mentioned in the AQA, their cumulative impact was still considered during the FIDOL assessment of the site's impact on the receiving environment and on this basis the analysis of the AQA does not need to change.

2.4 Scale of OBDA Activities

2.4.1 *The staging approach (approximately 5 ha per stage) represents a relatively large exposed area at any one time. Additional detail is recommended on:*

- *The scale and spatial extent of active overburden disposal; and*
- *How dust will be effectively managed over large exposed areas during each stage*

PDP has set out further information on the staging of the OBDA in the following section.

Figure 3 provides details of the total area that each stage will cover when finalised. While Stage 1 covers an area of 5.3 ha, each corresponding stage covers an area of less than 2 ha with the exception of Stage 4 (4.26 ha total). Furthermore, Winstone has confirmed that Stage 1 (and following stages) will be progressively cleared, which means that at no stage will the active OBDA be greater than 5 ha, and generally it will be less than 2 ha. In addition to this, all of the mitigation measures discussed in Section 5.0 of the AQA will still be used to minimise generated dust emissions, with progressive rehabilitation used where practical to control the potential for windblown dust.

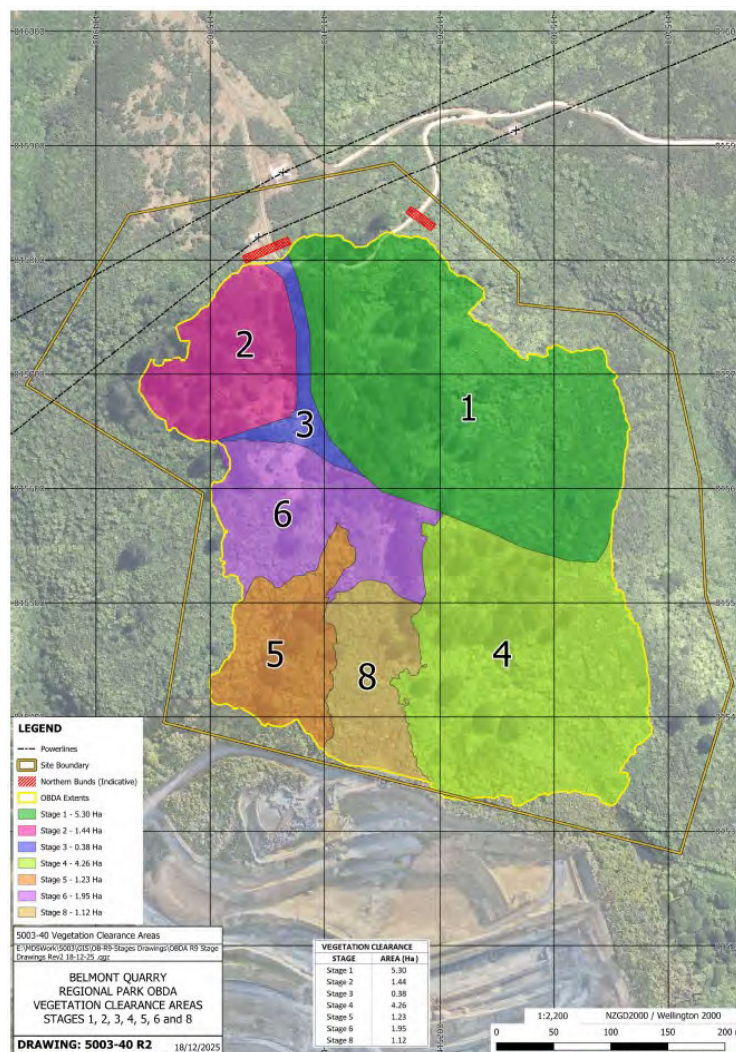


Figure 2: Staging of OBDA and Vegetation Removal

Consequently, the size of the open areas will be comparable to that consented elsewhere.

2.5 Dust Travel Distance Assumptions

2.5.1 *It is recommended that Section 7.1 is updated to consider the influence of topography and elevation on dust dispersion.*

PDP agrees that the surrounding topography will influence the possible transport distances that dust generated at the OBDA can travel. While sources located on steep terrain can result in an increase in suspension time and distances towards sensitive receptors, the receiving environment around the OBDA is a plateau relative to the area on the southern end of the site. The elevations around the proposed OBDA do not decrease substantially within 300 m of the site, with the exception being to the southeast where there is a slight valley approximately 200 m away.

Due to the elevations around the OBDA effectively being equivalent to the OBDA activities, PDP considers that using Stoke's Law as an assumption of dust travel distances is adequate for assessing dust emissions from the site.

Consequently, PDP does not consider that discussion and analysis in Section 7.1 of the draft AQA regarding the expected suspension distances needs to be amended.

2.5.2 *Figure 7 includes information for concrete particles, which are not relevant to this project. It is recommended that this figure be updated to include more representative of overburden materials, such as weathered greywacke and associated fine soils (e.g. silts and clays), or sands.*

Figure 7 in the AQA contained information that should have been updated. Therefore, PDP has provided an updated estimate of travel distances in Figure 3. These have been calculated using Stokes Law with the following assumptions:

- ✧ The particle diameter of all material is 50 μm .
- ✧ The density of soil is 1.6 g/cm^3 .
- ✧ The density of clay is 1.7 g/cm^3 .
- ✧ The density of greywacke is 2.6 g/cm^3 .

This updated figure shows that the other material considered does not travel further than the soil particles and does not change the AQA conclusions of Section 7.1.

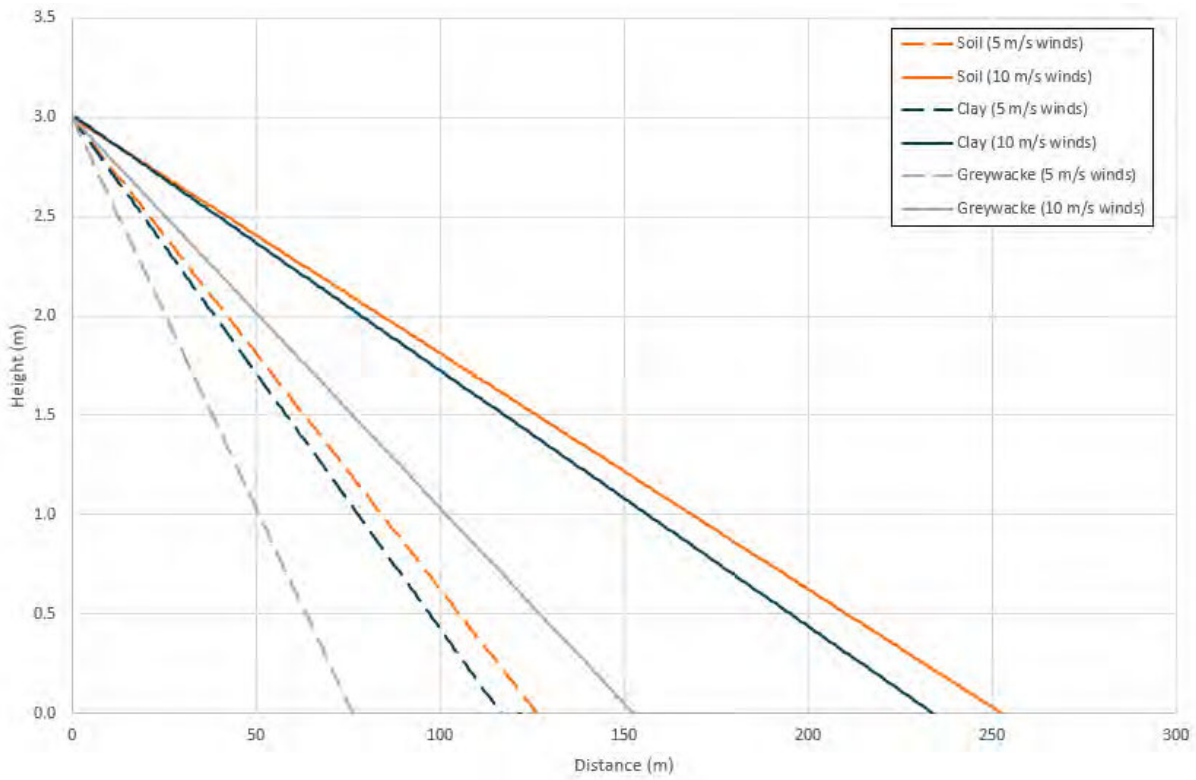


Figure 3: Difference in Particle Travel with wind speed

2.6 Dust Monitoring Period

- 2.6.1 *The report states that the monitoring period was selected to align with typical quarry activity periods. It is recommended that confirmation is provided that monitoring coincided with representative operational activities (e.g. stripping, extraction).*

Winstone has provided a map to identify where quarry activities took place during the monitoring period (July to December 2025). This indicates that normal operations such as fines disposal, extraction activities and general site activities were undertaken over this time period as shown in Figure 4. During this period there was no major overburden placement works at the Cottle Block OBDA.



Figure 4: Location of Cut and Fill Activities at Belmont Quarry between July to December 2025

2.6.2 *It will also be helpful to know how far away overburden was being placed in relation to the dust monitor.*

Figure 5 shows the Cottle Block OBDA location in relation to the monitoring sites used in the report. The PDP monitor was approximately 520 m northeast of the Cottle Block OBDA. The existing EBAM used to record background TSP (Total Suspended Particulate) during overburden is approximately 250 m southwest. The difference in distance between the PDP monitor compared to the Cottle Block OBDA would have a negligible impact on the background concentrations as no major overburden placement works occurred during July to December 2025.



Figure 5: Current OBDA in relation to Site EBAM (OBDA highlighted Yellow)

- 2.6.3 Table 4 presents summary statistics for background TSP concentrations measured at the proposed OBDA monitoring site. It is recommended that this table is updated to include a summary of monitoring data from overburden campaigns.

We have provided an updated table showing the summary of concentrations observed for both the PDP monitoring campaign and Season Seven. This is shown in Table 1.

Table 1: Summary of TSP at PDP Monitoring Site Against Season Seven

Location	Time Average	Average	75%ile	Maximum
		$\mu\text{g}/\text{m}^3$		
PDP Monitor	1-hour	13.2	17.1	74.3 ¹
	24-hour	13.2	16.8	28.7
Season Seven	1-hour	14.1	16.7	137.8 ²
	24-hour	14.1	15.5	30.7

Notes:

1. The 99th Percentile for 1-hour is 37.5 $\mu\text{g}/\text{m}^3$ indicating that the maximum could be an outlier.
2. The 99th Percentile for 1-hour is 42.7 $\mu\text{g}/\text{m}^3$ indicating that the maximum could be an outlier.

- 2.6.4 The report references comparison with data from a single previous overburden campaign (Season 7). It is recommended that:
- Summary monitoring data from previous overburden campaigns is included to enable a clearer comparison between background conditions and operational conditions; or
 - Further explanation is provided as to why only Season 7 is applicable when comparing effects of an overburden campaign

PDP considers that the focus on a single previous overburden campaign, specifically of Season 7, provides a robust dataset which is adequate for analysing the experienced background concentrations of the receiving environment during normal quarry operations.

While PDP is aware of all the previous overburden campaigns, we were only able to source monitoring data for Season Six and Season Seven due to changes in the equipment and the way that data is stored by the monitoring company data base.

The work and location of activities in quarries changes overtime as does the potential for impacts due to the changes in terrain and topography that the quarrying produces. This leads to a constant change in how and where dust is generated and transported from and around the site. This is especially true of pit works, as the deeper the quarry the more difficult it is for dust to reach its maximum suspension distance shown in Section 7.1 of the AQA.

Consequently, using the Season Seven overburden campaign provides us with the best representation of the impacts during OBDA activities as it provides dust data for the most recent state of the site.

For completeness we have provided a summary of the Season Six TSP concentrations, and a polar plot in Table 2 and Figure 6 respectively. Figure 6 shows the hourly mean TSP concentrations recorded during Season Six using the same scaling as the Season Seven polar plot in the report. In addition to this Table 2 shows the TSP concentrations observed in Season Six are not significantly different at the median or 75%ile values, with the only difference being the maximum values. The use of these values instead of

those from Season Seven would not make a significant difference to the analysis and conclusions of Section 7.2 of the AQA, or require the use of additional mitigation measures.

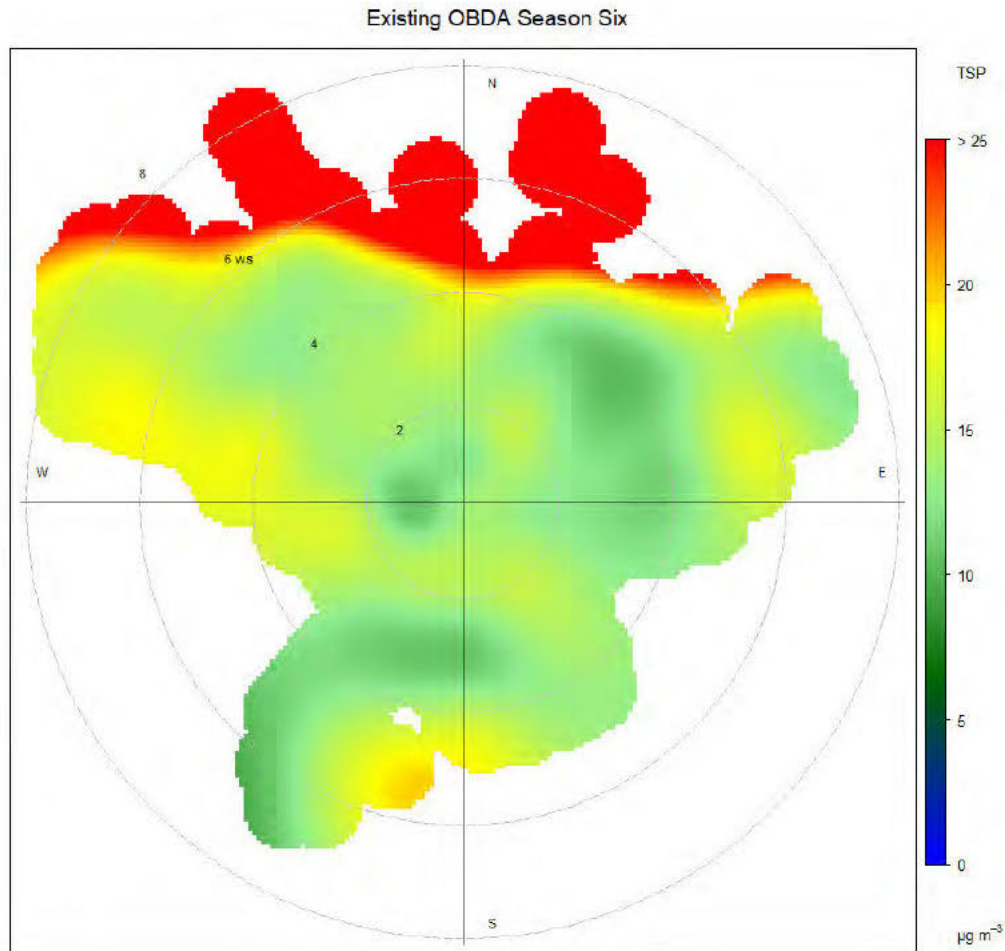


Figure 6: Polar Plot of Hourly Mean of TSP During Season Six

Table 2: Historic EBAM Monitoring Data during Season Six

Location	Average	75%ile	Maximum
	$\mu\text{g}/\text{m}^3$		
1-hour	14.0	16.8	288.3 ¹
24-hour	14.0	15.7	49.0

Notes:

- The 99th Percentile for 1-hour is 41.9 $\mu\text{g}/\text{m}^3$ indicating that the maximum could be an outlier.

2.7 FIDOL Assessment

2.7.1 The FIDOL assessment should be updated to:

- *Incorporate a more representative (multi-year) meteorological dataset; and*
- *Consider the potential influence of elevated dust sources relative to receptors.*

Given our discussion in Section 2.1.2 in relation to the extended meteorological dataset, and specifically that it does not change the potential frequency of exposure, and the discussion in Section 2.5 on terrain, PDP does not consider that the FIDOL assessment needs to be updated and the conclusions of AQA are still applicable.

2.7.2 In addition, the Frequency component would benefit from clearer qualitative descriptors (e.g. low, moderate, high frequency) to improve clarity and interpretability.

PDP agrees that clearer qualitative descriptors would benefit Section 7.3.1 of the AQA and so this will be amended for clarity and interpretability as follows:

Based on the frequency of winds (shown in Table 5 of the AQA) almost all sensitive receptors are infrequently downwind of the site in wind speeds greater than 5 m/s. The exception to this is R7 which has a moderately frequent exposure to winds greater than 5 m/s (6.5%). The lighter winds (between 0.5 to 5 m/s) that have been considered for R10 also occur infrequently.

Limitations

This memorandum has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Winstone Aggregates. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the memorandum. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This memorandum has been prepared by PDP on the specific instructions of Winstone Aggregates for the limited purposes described in the memorandum. PDP accepts no liability if the memorandum is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

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Trevor Everett

Air Quality Scientist

Reviewed and approved by



Andrew Curtis

Technical Director – Air Quality

Appendix: C.1.3 Written Approvals – GWRC

By email:

Shalini Sanjeshni (Winstone Aggregates) [REDACTED]

Phernne Tancock [REDACTED]

Philip Heffernan (Winstone Aggregates) [REDACTED]

Winstone Aggregates (Winstone's) Belmont Quarry Development

Support for Offset/Mitigation Proposal

15 June 2026

Shalini Sanjeshni

Project Manager

Fletcher Concrete and Infrastructure Limited trading as Winstone Aggregates

C/- 810 Great South Road

Penrose

Auckland 1061

Dear Shalini

I refer to your correspondence dated 11 June 2026, seeking Greater Wellington's confirmation of support for Winstone's proposed **Belmont Quarry Development – Belmont Regional Park Offset Areas** associated with the Belmont Quarry Development project, (the project).

I confirm our support in principle for the use of land within Belmont Regional Park, consisting of two potential sites:

- Land that is part of the Conservation Estate (owned by the Crown but which is managed and controlled by Greater Wellington as Belmont Regional Park) in the immediate vicinity of the Proposed OBDA land; and
- A block of land known as the Heffernan Block that is within the Regional Park and owned by Hutt City.

Greater Wellington Regional Council gives support for the use of this identified land for use for biodiversity restoration and enhancement (the proposed works), which may be required for offsetting/mitigation purposes involved in regulatory requirements of the project.

Greater Wellington's support for the use of this land is subject to the matters outlined below.

We confirm the following:

- The proposed works described in the correspondence dated 11 June 2026 are not currently subject to programmed works by Greater Wellington that would conflict with the proposed offset or mitigation activities.
- The proposed works are generally consistent with the long-term management intent for the land, including ecological management and site restoration.
- The land is held as Belmont Regional Park land and managed by Greater Wellington and is subject to applicable statutory and management plan requirements being a recreation reserve.

For the avoidance of doubt, this letter confirms support from an asset management perspective only.

The regulatory process for the Belmont Quarry Development Project is managed through the relevant statutory approval pathway, including the requirements of the Resource Management Act 1991 and/or the Fast-track Approvals Act 2024. Accordingly:

- The proponent must comply with all relevant statutory requirements.
- Any offset or mitigation proposal must be assessed and accepted through the applicable consent or approval process.
- This letter does not override or pre-empt any regulatory decision regarding the appropriateness, scale, or location of the proposed offset or mitigation.

Should statutory approval be granted for the Belmont Quarry Development Project, a separate agreement with Greater Wellington Regional Council will be required to address operational matters, including (as applicable):

- Access arrangements
- Health and safety requirements
- Staging/timing of works
- Methodology of works – Winstone's will consult Greater Wellington, in its capacity as manager of Belmont Regional Park as part of the development of the Ecological Restoration Plan for this area to ensure that the proposed methods align with Greater Wellington's management methods for park restoration and biodiversity enhancement in Belmont Regional Park.
- Maintenance and monitoring obligations
- Long-term management responsibilities
- Any cost recovery or funding arrangements

We appreciate the opportunity to review and discuss the proposal and trust that this letter assists you in progressing the necessary approvals.

Nāku iti noa, nā.



David Boone
Manager, Ecosystems & Community

Shalini Sanjeshni (Winstone Aggregates)

From: Andrew Banks [REDACTED]
Sent: Thursday, 30 July 2026 4:57 pm
To: Phernne Tancock; David Boone; Shalini Sanjeshni (Winstone Aggregates); Ella Hardy
Cc: Aidan Cameron; Colin Hopkins; Jessica Glover
Subject: Re: Belmont Fast Track - Works in Regional Park

Kia ora Phernne,
I will respond to your RMA consenting query below.

Any RMA consents necessary to affect a translocation need to be determined by Winstone based on the final details of the translocation activities that Winstone are proposing in their substantive application. Our understanding, based on the draft Ecological Assessment (dated 6 May 2026), is that Winstone are considering translocating mature swamp maire to existing natural inland wetlands (we infer this from the discussion on page 61 of the Ecological Assessment, as the assessment is not entirely clear on this matter).

If it is the case that Winstone are proposing to translocate swamp maire to an existing natural inland wetland, then Rule R114 of the NRP (see screenshot below) will apply. If any proposed translocation activities do not meet the conditions of that rule, then resource consent will be required (and our view is that if this is the case, it should be applied for as part of the substantive application).

We have also previously advised that any ancillary activities necessary to implement offsetting (for example, constructing access tracks to establish or maintain offsetting) should be assessed against the relevant permitted activity rules/regulations. If resource consent for these activities is required this should also be included as part of the substantive application.

Ngā mihi,
Andrew



Andrew Banks
Kaitohutohu Matua | Senior Resource Advisor
Greater Wellington Te Pane Matua Taiao
[REDACTED]

Rule R114: Planting and pest plant control in natural wetlands and outstanding natural wetlands – permitted activity



The deliberate introduction or planting of a plant, and the removal or control of pest plants in the bed of a **natural wetland**, or **outstanding natural wetland** including any associated:

- (a) disturbance of a river or lake bed, or foreshore or seabed, that forms part of a **natural wetland** or **outstanding natural wetland**, and
- (b) deposition in, on, or under a river or lake bed, or foreshore or seabed, that forms part of a **natural wetland** or **outstanding natural wetland**, and
- (c) damage to part of the foreshore or seabed that forms part of a **natural wetland** or **outstanding natural wetland**, and
- (d) diversion of water, and

(e) discharge of sediment to water

is a permitted activity provided the following conditions are met:

- (f) only indigenous wetland species typical of the area and wetland type are deliberately introduced or planted, and
- (g) only plant species that are not typical of the area and wetland type are deliberately removed or controlled, and
- (h) only **agricultural** approved by the Environmental Protection Authority for use into and over water are used and the conditions of Rule R37 are met, and
- (i) **agricultural** are not applied by aerial spraying, and
- (j) only hand-held machinery is used in any area of the **natural wetland or outstanding natural wetland**, and
- (k) the activity shall comply with the wetland general conditions for activities in **natural wetlands and outstanding natural wetlands** specified above in Section 5.4.2.

Note

The Wellington Regional Council provides advice on its website and upon request regarding the management of wetlands, including appropriate species to plant (those that are typical of the area and wetland type) and appropriate pest plants to remove (those that are not typical of the area and wetland type).

Rule R114 prevails over Regulation 38(1) and (2) of the *Resource Management (National Environmental Standards for Freshwater) Regulations 2020* where the activity is the deliberate introduction or planting of a plant, or the removal or control of pest plants in the bed of a **natural wetland** or an **outstanding natural wetland**. Regulation 38 otherwise applies.

From: Phernne Tancock [REDACTED]
Sent: Thursday, July 30, 2026 1:38 PM
To: David Boone [REDACTED] Shalini Sanjeshni (Winstone Aggregates)
[REDACTED] Ella Hardy [REDACTED] Andrew Banks
Cc: aidan [REDACTED]; Colin Hopkins [REDACTED]
Subject: FW: Belmont Fast Track - Works in Regional Park

Hi David

Thanks for your email and for setting these out. A few edits and comments from me below. As discussed, Winstone is really keen to understand the trigger for the RMP for the lizard relocation so it can prepare a permit application (if needed). What is your likely ETA on this?

If it helps, happy to meet again to work through -Andrew may be able to assist here too.

Thanks
Pherne.

From: David Boone <[REDACTED]>
Date: Thursday, 30 July 2026 at 10:32 AM
To: Shalini Sanjeshni (Winstone Aggregates) [REDACTED]
Cc: Pherne Tancock [REDACTED] >; Colin Hopkins [REDACTED]
Ella Hardy [REDACTED]; Andrew Banks [REDACTED]
Subject: RE: Belmont Fast Track - Works in Regional Park

Kia ora Shalini,

There's been a few separate email chains relating to Reserve Management Plan (RMP) permission requirements and/or landowner permissions for potential FTAA required offsetting to occur on park land.

Below are the questions as we've interpreted them. Please clarify if we've got this wrong.

1. Is GW agreeable to the landowner permission provided on 15 June being reaffirmed to include **additional land intended for** potential fauna/lizard translocations **(if the necessary permits are granted)**?
2. Are fauna translocations a restricted activity requiring a RMP permission or not? And if "yes", what does the permission process look like?
3. Is RMP permission required for basic restoration activities (e.g. standard planting, native afforestation)?
4. ~~Is RMP and/or RMA permission required for flora translocation (e.g. mature swamp maire)?~~ **My understanding is that the mature swamp maire within the OBDA footprint is being relocated to wetland within Winstone's exchange footprint (i.e. Winstone owned land) so the relocation of swamp maire from one site to another (Winstone to Park) is not an issue. Any RMA approvals needed to relocate the mature swamp maire to another location within the Winstone owned OBDA are applied for as part of the RMA approvals for the OBDA. If Andrew Banks thinks the translocation of SM within the OBDA with a planning lens triggers a specific RMA rule, please let me know.**

There's a bit in this and we'll need some time to prepare our reply. We'll get back to you as soon as we can.

Dave



David Boone

Kaiwhakahaere Matua, Manager, Ecosystems & Community
Greater Wellington Te Pane Matua Taiao
[REDACTED]

From: Shalini Sanjeshni (Winstone Aggregates) [REDACTED]
Sent: Wednesday, 29 July 2026 10:30 am
To: Ella Hardy [REDACTED] >; David Boone [REDACTED]
Cc: Phernne Tancock [REDACTED]; Colin Hopkins <[REDACTED]>
Subject: Re: Belmont Fast Track - Works in Regional Park

Hi David,

I understand you spoke with Phernne yesterday regarding the offset and lizard relocation site maps within the Regional Park, and the need to update the written confirmation provided by Greater Wellington Regional Council in June 2026. Please find the updated document attached.

Thanks,
Shalini



Shalini Sanjeshni

Project Coordinator



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[/WinstoneAggregatesNZ](#)

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From: Shalini Sanjeshni (Winstone Aggregates) [REDACTED]
Sent: Monday, July 27, 2026 12:10 PM
To: Ella Hardy [REDACTED] >; David Boone [REDACTED]
Cc: Phernne Tancock [REDACTED] <[\[REDACTED\].nz](#)>; Colin Hopkins [REDACTED]
Subject: Belmont Fast Track - Works in Regional Park

Hi Ella and David

Thank you for your time on Friday to discuss the requirements for permits to undertake lizard relocation and offset planting works in the Belmont Regional Park.

This email is in addition to the email Phernne sent through last Friday 24 July.

At the meeting we discussed whether permits would be required for offset planting. Below, I have provided more information about what works are required within the Heffernan Block and the swamp mire offset areas. Could you please confirm if permits are required under the Reserves Act / Parks Management Plan to undertake these works, and if so, could you please confirm which provision under the management plan and any relevant policy that applies.

Lizard relocation area

- Relocation of ngahere geckos and northern grass skink to the Belmont Regional Park (as marked on the attached plans)

- o The areas have been proposed for Ngahere geckos as a contingency measure to avoid overcrowding is more than 20 geckos are found.
- o The first 20 animals will be released into Area 1, the next 10 animals will then be released into Area 2 and any further geckos salvaged in Area 3
- Pest management Rodents (rats and mice) -
 - o use of bait stations, traps for 2 months before lizard release and 5 years after final lizard translocation
 - o 3 pulse controls per year, approx. 7 weeks.
- Monitoring - post release monitoring only required if more than 20 individuals of any species are salvaged.

Documents attached:

- Map of all gecko and skink relocation sites : 6300_Belmont Lizard areas
- Draft LMP attached: 2529_Belmont Quarry Lizard Management Plan

Heffernan Block

The Heffernan Block is located 2km southwest of Belmont Quarry, see image below for location and has been identified as a location for offset planting



- Removal of weed and pest within each stage (approximately 18 ha overall)
- General indigenous revegetation planting (17 ha)
- Potential minor earthworks associated with wetland creation approx. 0.2 ha
- Access for vehicles, machinery and plant delivery.
 - o In terms with access to the restoration site - we can safely rely on the existing tracks as being sufficient and based on consultation with the GWRC Parks Team.
- Riparian planting along Speedy Stream.
- Works to be completed in 5-year staging, over 30 years.

Documents attached:

- Offset area and staging 26_07_01_Regional Park - Heffernan Block

Swamp maire planting

- Whilst the main area for transplanting swamp maire is within the site footprint. We have identified other areas in the Belmont Regional Park that would have suitable habitat for swamp maire planting
- In these areas - works would include seedling planting and weed maintenance in these areas to assist with establishment.

Documents attached:

- Location of where additional swamp maire plantings will occur : 26_06_11 Belmont Planting areas

For both Heffernan Block and the swamp maire planting area, GWRC has provided an "in principle" written approval for the works in its capacity as a land owner on 11 June 2026, see attached.

Please feel free to give me a call if you have any further questions.

Thanks,
Shalini



Shalini Sanjeshni

Project Coordinator



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[/WinstoneAggregatesNZ](#)



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By email [REDACTED]

18 August 2026

Shalini Sanjeshni
Project Manager
Fletcher Concrete and Infrastructure Limited trading as Winstone Aggregates
C/- 810 Great South Road
Penrose
Auckland 1061

Dear Shalini

Winstone Aggregates' (Winstone's) Belmont Quarry Development

Lizard relocation within Belmont Regional Park

I refer to your correspondence dated 27 July 2026 regarding Winstone's proposed Belmont Quarry Development – Belmont Regional Park lizard relocation areas associated with the Belmont Quarry Development project (the project).

Greater Wellington Regional Council (Greater Wellington) is the administering body responsible for the control and management of the Crown-owned recreation reserve forming part of Belmont Regional Park under the Reserves Act. Activities within Belmont Regional Park are subject to *Toitū Te Whenua Parks Network Plan 2020-30*, which is the reserve management plan for the Belmont Regional Park under the Reserves Act 1977.

Greater Wellington understands that Winstone Aggregates intends to apply for a Reserves Act approval under Schedule 6 of the Fast-track Approval Act 2024 (FTAA) to release salvaged geckos into Belmont Regional Park at two potential sites as described below and in the map in **Attachment 1**:

- Land that is part of the Conservation Estate (owned by the Crown but which is managed and controlled by Greater Wellington as Belmont Regional Park) in the immediate vicinity of the Proposed OBDA land described as Ngahere gecko 1, 2 and 3; and
- Land that is part of the Conservation Estate (owned by the Crown but which is managed and controlled by Greater Wellington as Belmont Regional Park) in the immediate northern vicinity of the Proposed OBDA land for the purposes of relocation of Northern grass skinks.

Under Clause 7(4) of Schedule 6 of the FTAA, Greater Wellington gives its written agreement for the activity described above to occur on the specified land within Belmont Regional Park, in its capacity as the local authority responsible for managing the reserve.

In providing its written agreement, Greater Wellington has taken into account the purpose of the FTAA, and the relevant matters under the Reserves Act, including *Toitū Te Whenua*.

Greater Wellington's written agreement is provided only for the purposes of Clause 7(4) of Schedule 6 of the FTAA in relation to Winstone Aggregates' intention to lodge an application for a Reserves Act approval under the FTAA. This letter does not pre-empt the Expert Panel's decision on the merits of the Reserves Act approval, nor does it preclude Greater Wellington from commenting on the approval under Section 53 of the FTAA, responding to requests for information on the approval (if any) from the Expert Panel, or commenting on draft conditions.

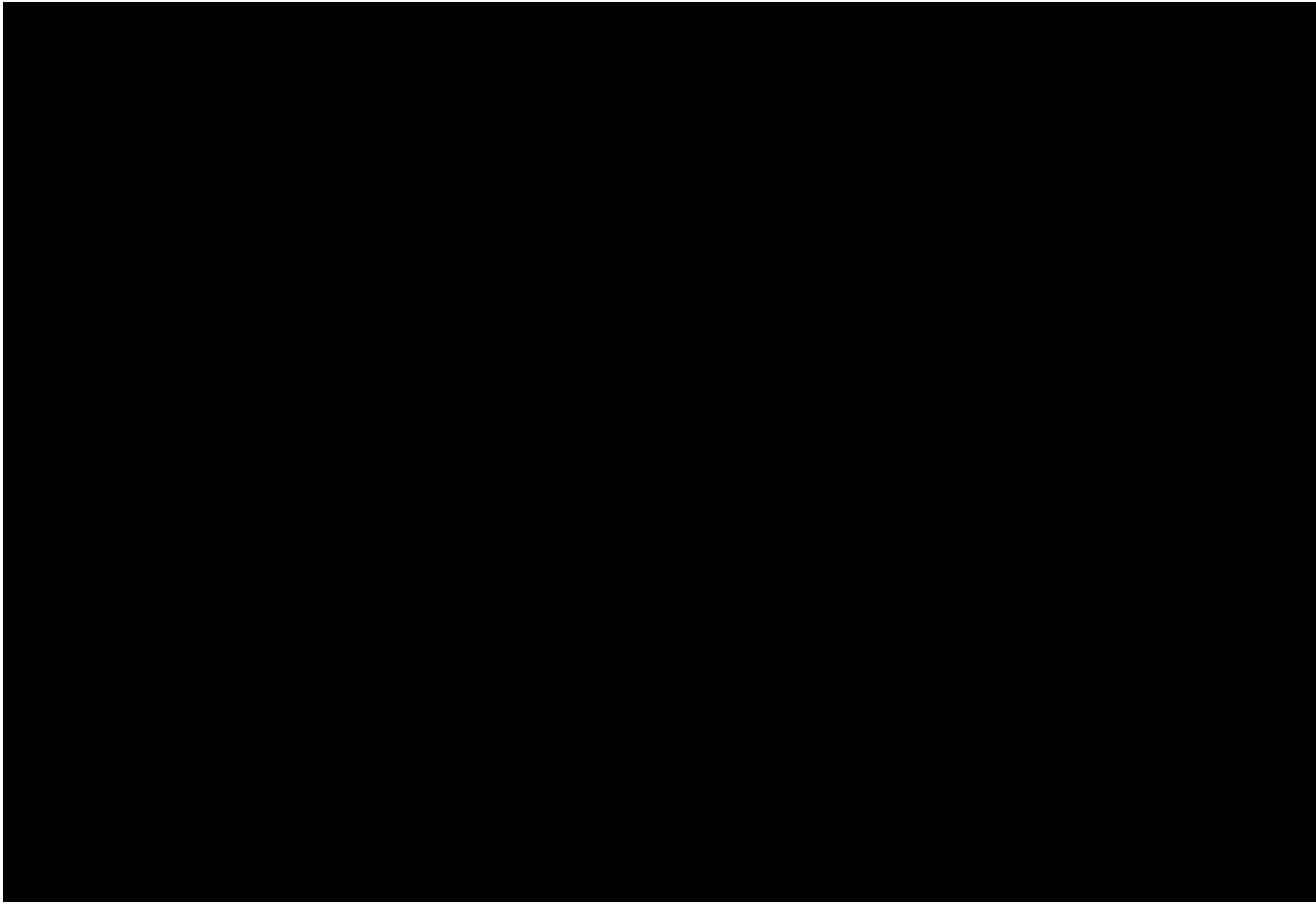
Should the Expert Panel grant the Reserves Act approval, the release of salvaged geckos must be undertaken in accordance with the approval, any relevant resource consents or wildlife permits, and any other statutory or regulatory requirements under other legislation, including the Resource Management Act 1991, Reserves Act 1977, and Wildlife Act 1987.

Nāku iti noa, nā

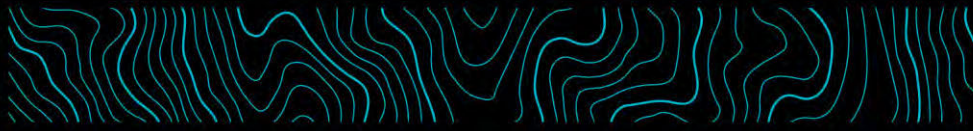


Fathima Iftikar
Group Manager Environment (acting)

Attachment 1



Appendix: C.1.4 Written Approvals – HCC



12/08/2026

Dear Shalini

Winstone Aggregates' Belmont Quarry Development – Ecological Assessment of Proposed Offset Area

Thank you for your correspondence regarding the proposed biodiversity offset area within the Heffernan Block of Belmont Regional Park.

Further to discussions with Winstone Aggregates and a review undertaken by Hutt City Council's Parks and Reserves teams, we have reviewed the proposed offset location and the supporting ecological restoration information provided.

Based on the documentation reviewed, **we consider the Heffernan Block to be ecologically suitable and technically feasible for the proposed biodiversity restoration programme**, including indigenous vegetation restoration, wetland creation, riparian enhancement, and associated long-term pest and weed management.

Accordingly, Hutt City Council's Parks Planning and Ecology teams have **no objection, from a planning and ecological perspective to the proposed offset area continuing to be progressed through the Fast-track approvals process.**

For the avoidance of doubt, this letter relates solely to the **planning and ecological assessment of the proposed offset location.**

This letter:

- confirms that the proposed location is considered suitable from a planning and ecological perspective;
- does not constitute approval of the biodiversity offset proposal;

- does not constitute landowner consent or approval for the use of the land;
- does not address any legal, property, governance or commercial matters associated with the proposal; and
- does not override or pre-empt any statutory approvals required under the Fast-track Approvals Act 2024 or any other applicable legislation.

Should the project receive the necessary statutory approvals, any future arrangements relating to the occupation, use or management of the land would be subject to any further approvals or agreements that may be required.

We appreciate the opportunity to review the proposal and trust this advice assists with progressing the project.

Yours sincerely

[Redacted Signature]

[Redacted Title]

Hutt City Council

Shalini Sanjeshni (Winstone Aggregates)

From: Isaac Velasco [REDACTED]
Sent: Wednesday, 12 August 2026 8:53 am
To: Shalini Sanjeshni (Winstone Aggregates)
Cc: Phernne Tancock; Arthur Nelson; Tim Johnstone
Subject: Belmont Quarry Development – Ecological Offset Area
Attachments: Final letter_signed_august26.pdf

Kia ora Shalini and team,

Thank you for your patience while we worked through the internal review of the proposed offset area .

I'm pleased to confirm that this process has now been completed. Please find attached Hutt City Council's signed letter regarding the ecological assessment of the proposed offset area.

As outlined in the letter, our Parks Planning and Ecology teams consider the proposed location ecologically suitable for the proposed restoration programme, and we have no objection from a planning and ecological perspective to the proposal continuing through the Fast-track approvals process.

Thank you again for your patience and for working with us through this process.

Ngā mihi,

Isaac Velasco
Parks Development Planner
Hutt City Council