

Site Validation Report (memo)

| Neighbourhood: Aorere | Stage: 2 | Superlot: AO-018 |
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| <p>Introduction (Objective and scope):</p> <p>This Site Validation Report (SVR) has been prepared for the Piritahi site located across 52, 54 and 56 Mayflower Close (Superlot AO-018). The site, which covers a total area of approximately 2,141 m², will be part of a larger residential housing re-development. The purpose of this report is to document the status of the site at the time of handover.</p> <p>Pre-remediation site contamination</p> <p>The pre-remediation site contamination conditions are detailed in the Piritahi, Site Specific Remedial Action Plan¹ (SSRAP) AO-018. In summary, no soils requiring remediation were identified.</p> <p>The soil types remaining at site and associated soil sample results are attached as Appendix A.</p> | | <p>Site remediation method:</p> <p>Per the approved SSRAP for AO-018, remediation was not required or undertaken for AO-018.</p> <p>Remedial goal:</p> <p>Impacted not a risk:-Remaining soil concentrations at/or below:</p> <ul style="list-style-type: none"> NESCS² residential (10% produce) soil contaminant standard (SCS) and AUP³ PA criteria for metals; and BRANZ⁴ residential soil guideline value for asbestos in soil. |
| <p>Applicable consent conditions</p> <p>This report has been prepared in accordance with Section 8 of the Site wide Soil Management Plan⁵ (SSMP) and to meet the requirements outlined in Condition 66 of BUN60354164⁶ (the consents).</p> <p>For this project, validation comprised confirmation that works were undertaken in accordance with the SSMP (Condition 21 of the consents), visual confirmation overseen by a suitably qualified and experienced practitioner (SQEP⁷) (Condition 22 of the consents) of remaining materials, and documentation that any excavated materials were managed and disposed to an appropriate disposal facility (Condition 28 of the consents).</p> | | |
| <p>Other reference documents:</p> <ul style="list-style-type: none"> Piritahi Land Remediation Investigation Report for Superlot AO-018⁸ | | |
| <p>Applicability</p> <p>This report has been prepared by the Piritahi Alliance. It is acknowledged that this report will be relied upon by Auckland Council for the purpose of undertaking its regulatory functions in relation to the work of the Piritahi Alliance. However, this report may not be relied upon in other contexts or for any other purpose, or by any other person, without the prior written agreement of the Piritahi Alliance.</p> <p>Recommendations and opinions contained in this report are based on our visual inspection and sampling of material within the remedial works area. The nature and continuity of the contamination away from the inspection and sampling locations is inferred but it must be appreciated that actual conditions may vary from the assumed model.</p> | | |

| Summary of works | |
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| Location and dimensions: | Remedial works were not required for this Superlot. |
| Variations from the SSRAP | No variations from the SSRAP occurred during the (non-remedial) earthworks. |
| Asbestos Management: | The following asbestos-in-soils management was implemented in accordance with the BRANZ guidelines during the works: In accordance with Piritahi procedures, unlicensed asbestos works controls were implemented across the Superlot. |
| Duration of remedial works: | Not applicable. |
| Soil removal and disposal: | Zero Tonnes (no remediation undertaken) |
| Imported material: | No soil was imported to site (Condition 30 of the Consents) |
| Unexpected discoveries: | No unexpected discoveries outside of expected contamination were reported during the remediation works. |
| Complaints and incidents | No complaints or safety or environmental incidents related to soil contamination were reported during the remediation works. |

¹ Piritahi 2022 Site Specific Remediation and Management Plan, Aorere, AO-018, Prepared for Kāinga Ora by the Piritahi Alliance, dated 19 May 2022.

² Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS).

³ Auckland Unitary Plan (AUP) Standard E30.6.1.4.

⁴ Building Research Association New Zealand New Zealand "Guidelines for Assessing and Managing Asbestos in Soil", 2017 (BRANZ).

⁵ Piritahi 2021. Site-Wide Soil Management Plan, Version 4, Aorere Development, Prepared for Kāinga Ora by the Piritahi Alliance, dated September 2021.

⁶ Comprising land use consent LUC60354165 and discharge consent DIS60354166.

⁷ Suitably qualified and experienced practitioner (SQEP) – as defined in the Ministry for the Environment "Users' Guide National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health", 2012.

⁸ Piritahi 2022. Land Remediation Investigation Report, Superlot AO-018, Prepared for Kāinga Ora by the Piritahi Alliance, dated May 2022.

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Validation results:

The validation work performed follows the general reporting and investigation methodology presented in the:

- Ministry for the Environment (MfE) Contaminated Land Management Guidelines No. 1. Reporting on Contaminated Sites in New Zealand (Revised 2021);
- MfE Contaminated Land Management Guidelines No. 5. Site Investigation and Analysis of Soils (Revised 2021); and
- BRANZ Guidelines for Assessing and Managing Asbestos in Soil (2017).

This SVR was completed under the direction of a SQEP.

The requirements of the SSMP and SSRAP were being followed and applicable resource consent conditions listed above were being met during site inspections completed by a Land Remediation staff member (SQEP).

A visual inspection of the cut surface was undertaken prior to site handover. No validation soil samples were required, as no remedial works were undertaken. The initial investigation samples were analysed for metals (arsenic, cadmium, chromium, copper, lead, nickel, and zinc) by International Accreditation New Zealand (IANZ) accredited laboratories using industry standard methods and can be relied upon in lieu of validation samples, (refer to investigation report for results).

Final site condition:

- The initial soil investigation indicated that the site met remedial goals without requiring remediation.
- Based on the investigation results, no additional monitoring or management (beyond standard earthwork controls) for ground contamination is deemed to be required for the ongoing use of the site. However, as results above the published background concentrations for arsenic, cadmium, copper, lead and zinc were reported onsite, there may be minor future development implications associated with consenting and/or disposal of soils at these locations, as the soil does not meet cleanfill requirements.

Document Control

| Date | Version | Prepared by | Reviewed by | Authorised by |
|---------------|---------|-------------|--------------|---------------|
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