



## **Appendix AK**

# Contaminated Site Management Plan

# ENGEO

ENGEO Limited  
20B Newton Street  
Mount Maunganui, 3116  
(07) 777 0209  
[www.engeo.co.nz](http://www.engeo.co.nz)



**Project Number 19630.000.001**

## **Draft Contaminated Site Management Plan (CSMP)**

Wairakei South Development, Papamoa,  
Bay of Plenty

Submitted to:  
Bell Road Limited Partnership  
1 Golden Sands Drive  
Papamoa  
Tauranga

**ENGEO Document Control:**

<b>Report Title</b>	Draft Contaminated Site Management Plan (CSMP) – Wairakei South Development, Papamoa			
<b>Project No.</b>	19630.000.001	<b>Doc ID</b>	32	
<b>Client</b>	Bell Road Limited Partnership	<b>Client Contact</b>		
<b>Distribution (PDF)</b>				
<b>Date</b>	<b>Revision Details / Status</b>	<b>Author</b>	<b>Reviewer</b>	<b>WP</b>
18/12/2025	Issued to Client	CR / AG	RG	DF
06/05/2026	Revision 1 – updated following client and legal comments	CR / AG	RG	DF

**SQEP Certifying Statement**

I certify that the site has been assessed in accordance with current New Zealand Regulations and guidance documents and that this report has been prepared in general accordance with the Ministry for the Environment's Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand, 2021.

I am considered by ENGEO Limited to be a suitably qualified and experienced practitioner (SQEP) able to certify reports pursuant to the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, based on the company's definition of a SQEP as given below.

Richard Griffiths, CEnvP SC

6 May 2026

*ENGEO Limited requires that a SQEP has the following Qualifications / Experience:*

- *Tertiary science or engineering qualification relevant to environmental assessment.*
- *A minimum of ten years of relevant experience.*
- *Registration with a professional body that assess and certifies environmental professionals in the competency criteria of training, experience, professional conduct, and ethical behaviour.*

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## 1 Introduction

ENGEO Ltd was requested by Bell Road Limited Partnership to develop a Draft Contaminated Site Management Plan (CSMP) for soil disturbance activities to be carried out at the Wairakei South Development, Papamoa, (herein referred to as 'the site', as shown in Figure 1). This work has been carried out in accordance with the signed short form agreement dated 15 April 2025.

## 2 Summary of Development Activities Relevant to this Draft Contaminated Site Management Plan (CSMP)

The proposed development encompasses an area of approximately 350 hectares and is planned as an integrated mixed-use subdivision featuring residential and commercial zones, community facilities, educational sites, and essential infrastructure such as stormwater and wetland management areas. Site preparation will require a combination of cut and fill earthworks to achieve the desired landform, with the majority involving filling to elevate the landform to a level of 3.5 m RL, representing an increase of roughly three metres in height.

A network of culverts and drainage systems will be incorporated to effectively manage surface and groundwater flows. In addition, designated stormwater treatment reserves will be established to support comprehensive water resource management for the site.

## 3 Objectives and Relevance of the Draft Contaminated Site Management Plan (CSMP)

### 3.1 Objective

The objectives of the Draft Contaminated Site Management Plan (CSMP) are to:

- Support the application for the development through a Fast-track Consent;
- Outline additional investigation requirements in areas of the site that were inaccessible and have been subject to intrusive investigations to date;
- Provision for remedial actions for the site based on previous investigation(s), results of additional investigations, and / or unexpected discovery of contamination, where required;
- Oversight, validation and reporting of remedial works, if required;
- Outline management procedures and controls to be implemented during disturbance of contaminated soils to mitigate risks to human health and the environment;
- Outline actions to be undertaken if unidentified contamination is encountered; and
- Reporting requirements, including:
  - Additional investigations;
  - Remedial Action Plan development, if required; and
  - Works Completion / Site Validation.

### 3.2 Relevance

This document has been prepared in general accordance with the Ministry for the Environment's (MfE's) Contaminated Land Management Guidelines (CLMG) No.1 – Reporting on Contaminated Sites in New Zealand (MfE, 2021a) and should be read in conjunction with the 2025 ENGEO Combined Preliminary Site Investigation Detailed Site Investigation (PSI/DSI) (ref: 19630.000.001\_12) prepared for the site.

The information and recommendations provided herein are to augment the processes on-site and are not intended to relieve any contractor or the controller of the place of work of their responsibility for the health and safety of their workers and contractors. Nor is it intended to relieve contractors undertaking work on the site of their responsibilities under the Health and Safety at Work Act 2015 and subsequent amendments.

The provisions of the Draft Contaminated Site Management Plan (CSMP) are mandatory for all persons entering the site and all contractor and sub-contractor employees who will be involved in implementing the procedures identified in this document. The contractor shall develop a site-specific health and safety plan to compliment this Draft Contaminated Site Management Plan (CSMP) and to address other health and safety requirements that may be applicable to their site works.

This Draft Contaminated Site Management Plan (CSMP) is considered suitable to provide controls based on the contamination identified during the previous investigation works. If contamination is found that varies from what has been assumed in preparing this Draft Contaminated Site Management Plan (CSMP), the Draft Contaminated Site Management Plan (CSMP) will need to be updated to account for the changed site understanding. If a revised Draft Contaminated Site Management Plan (CSMP) is prepared, it will be re-distributed to the project team (Table 1) and the relevant consenting and compliance authority prior to earthworks commencing.

## 4 Roles and Responsibilities

Roles and responsibilities for the proposed earthworks are presented in Table 1.

**Table 1: Assigned Responsibilities for Site Work**

Role	Responsibility
<b>Site Owner –</b> Bell Road Limited Partnership	To distribute this Draft Contaminated Site Management Plan (CSMP) and be responsible for ensuring that the site works are undertaken in accordance with this document and any revisions to this document.
<b>Site Contractor (Main Contractor / General Earthworks) –</b> <i>To be confirmed</i>	<p>To distribute the Draft Contaminated Site Management Plan (CSMP) to employees and subcontractors, including updated versions, and to ensure that the correct copy of the Draft Contaminated Site Management Plan (CSMP) is on-site at all times.</p> <p>To provide control and oversee the redevelopment works. It is recommended that a designated, suitably trained Site Supervisor is present to oversee the works. The Site Supervisor would address changes to site procedures, as necessary, should unanticipated conditions arise. This also includes ensuring that all site staff and subcontractors are aware of and comply with the procedures and health and safety requirements contained within this document. It is anticipated that this Site Supervisor would represent the main site contractor.</p> <p>Should an incident occur on-site which may result in discharges, the supervisor will take control of the situation and coordinate the efforts of all on-site to minimise the impact. Worker and public Health and Safety concerns will take precedence over environmental discharges, should it be unsafe to employ controls or emergency measures immediately.</p> <p>As a minimum, the Site Supervisor should have received non-certified training in asbestos identification, safe handling and suitable controls, to ensure that, if asbestos / asbestos containing materials (ACMs) are encountered they are identified and appropriately managed. A copy of the training shall be kept on record.</p>
<b>Contaminated Land Specialist –</b> ENGEO	<p>A Contaminated Land Specialist company with Suitably Qualified and Experienced Practitioners (SQEPs) in contaminated land management shall be appointed to liaise with the contractor during the course of the works.</p> <p>Representatives from the Contaminated Land Specialist company shall:</p> <ul style="list-style-type: none"> <li>• Perform the additional investigations in areas requiring intrusive investigations.</li> <li>• Provide environmental support during site works (if required) and prepare a report at the completion of works.</li> </ul>

## 5 Summary of Contamination Risk

The ENGEO PSI / DSI completed in November 2025 identified a number of areas of risk through a combination of desktop and intrusive investigations. A summary of identified areas of risk that require management through this DRAFT CSMP are summarised in Table 2, refer to the PSI / DSI for a full summary identified areas of contamination

For ease of reference, the site has been divided into 10 sub-areas: Areas A1 – A3 (southwest), B1 – B5 (north), and C1 – C2 (southeast). See Figure 1 for sub-area locations.

Table 2: Summary of Identified Areas of Risk to be Managed Through Construction

Location	Figure Reference	Item	Discussion
A1 – A	Fig. 2a	Soil impacted by deterioration of adjacent building materials	Zinc present in excess of environmental discharge criteria
A3 – A	Fig. 2b	Soil impacted by deterioration of adjacent building materials	Arsenic in excess of recreational human health criteria and lead in excess of residential human health criteria. Zinc is also present in excess of environmental discharge criteria.
			Lead in excess of high density residential human health criteria and environmental discharge criteria. Asbestos also detected in excess of commercial / industrial human health criteria.
			Zinc present in excess of environmental discharge criteria. Asbestos present in excess of high-density residential human health criteria.
A3 – B	Fig. 2b	Soil impacted by storage and spillage of fuel	Arsenic in excess of recreational human health criteria. Zinc, arsenic and naphthalene in excess of environmental discharge criteria
A3 – C	Fig. 2b	Soil impacted by deterioration of adjacent stockyards.	Zinc in excess of environmental discharge criteria.
A3 – D	Fig. 2b		Arsenic in excess of residential human health criteria
A3 – E	Fig. 2b	Soil impacted by deterioration of adjacent building materials, disposal of waste and historical sheep dipping activities	Arsenic in excess of recreational human health and environmental discharge criteria
A3 – F	Fig. 2b		Arsenic and lead in excess of recreational human health criteria and cadmium in excess of residential human health criteria. Arsenic, lead and zinc in excess of environmental discharge criteria
A3 – G	Fig. 2b	Soil impacted by deterioration of adjacent building materials	Zinc in excess of environmental discharge criteria

Location	Figure Reference	Item	Discussion
B2 – A	Fig. 2c	Soil impacted by a burn pit – was present on soil surface	Arsenic in excess of residential human health criteria
B4 – A and B4 – B	Fig. 2c	Potential for soil impacted by deterioration of building materials and placement of fill / soil disturbance.	Investigation required.
B5 – A	Fig. 2c	Potential for soil to be impacted by historical horticultural activities and trailer manufacturing workshop present on the site	
C1 – A	Fig. 2d		
C1 – B	Fig. 2d		Arsenic in excess of residential human health criteria
C1 – C	Fig. 2d	Soil impacted by deterioration of adjacent building materials	Zinc in excess of environmental discharge criteria.
C1 – D	Fig. 2d		Arsenic in excess of residential human health criteria and environmental discharge criteria. Zinc in excess of environmental discharge criteria.
C1 – E	Fig. 2d		Zinc in excess of environmental discharge criteria.
C1 – F	Fig. 2d	Soil impacted by placement of fill and waste material	Arsenic in excess of high-density human health criteria
C1 – G	Fig. 2d		Arsenic in excess of commercial/industrial human health criteria. Zinc in excess of environmental discharge criteria.
C1 – H	Fig. 2d		Arsenic in excess of recreational human health criteria and environmental discharge criteria. Copper and zinc in excess of environmental discharge criteria.

Location	Figure Reference	Item	Discussion
C2 – A	Fig. 2e	Potential for soil impacted by placement of fill / soil disturbance.	Investigation required.
C2 – B	Fig. 2e	Potential for soil impacted by historical fuel storage and farm workshop	

## 6 Proposed Additional Investigation Works

### 6.1 Detailed Site Investigations

Due to access restrictions arising from incomplete acquisitions, properties within the development site at 285, 285A (Area B4), 314 (Area C2) and 339 Bell Road (Area B5) have not been subject to intrusive soil investigation and sampling. These properties have been investigated by desktop study only. Investigation and sampling of these properties is required to be completed prior to any future disturbance of soils within these areas to characterise any human health, environmental or development risk in these areas, determine the suitability of the procedures and controls outlined within this DRAFT CSMP and/or confirm if further soil management requirements are necessary.

Additional site investigation in the form of a detailed site walkover and intrusive sampling will likely be required to be completed, these should be undertaken in accordance with CLMG No 5: Site Investigation and Analysis of Soils (MfE, 2021b) by suitably qualified and experienced contaminated land practitioners. Soil sampling investigations should target the areas of potential risk identified through the ENGEО PSI/DSI and any additional risks identified during site observations, as well as supporting assessment and management of the project development risk.

Additional reporting will be provided as investigations are completed. Intrusive investigations conducted in areas B4, B5, and C2 will be documented in either an updated revision of the ENGEО PSI/DSI report, or as separate standalone Detailed Site Investigation reports, or via an addendum to the PSI/DSI.

### 6.2 Contamination Delineation

Where disturbance of areas of contaminated soils (refer Table 2 above) are needed, further investigation may be required to confirm the lateral and vertical extent of the contamination and inform soil management / disposal requirements (as outlined Table 4).

### 6.3 CSMP Updates

Following the investigation reporting updates to this DRAFT CSMP may be required to incorporate any further considerations identified through these additional investigations.

## 7 Remediation Action Plan

If required through further investigation or unexpected discovery, a site-specific Remediation Action Plan (RAP) will be prepared by the SQEP. The RAP will discuss further characterisation sampling, evaluation of remedial options, and procedures for soil management should excavation become necessary due to design modifications.

Site-specific RAPs are required if the intended land use changes from what was originally specified in the PSI/DSI, if contaminated areas must be excavated due to revised designs, or if the grade is not raised in known contaminated regions, thereby creating a pathway between source and receptor. Remedial measures could involve managing contamination *in situ* or the excavation and disposal of contaminated material at an appropriately licensed off-site facility.

The RAP will contain the following details:

- Regulatory context and an overview of required consents.
- Comprehensive description of the site, including a summary of all previous investigations.
- Clear remediation or management objectives to ensure compliance with required outcomes and suitability for intended land use.

Summary of selected remedial or management methods, incorporating:

- Detailed information regarding excavations (such as location, depth, and volume).
- Identification of areas where soil is relocated or encapsulated on-site.
- Implementation of controls to manage the site and prevent unintentional discharge.
- Outline of suitable disposal locations and transport management procedures.
- Specification of required health and safety controls.
- Methodology for proposed validation sampling to confirm that remedial objectives have been met.

Should remedial earthworks be undertaken, a Site Validation Report (SVR) will be required. At the completion of remedial activities, validation sampling will be conducted by a SQEP. The SVR should document all remedial actions, including the specific locations and dimensions of excavations, as well as the quantity of soil removed or capped. Additionally, the SVR must contain records of contaminated soil and fill disposal, usage of personal protective equipment (PPE), and details regarding the importation of clean fill or other suitable fill material.

All reporting and intrusive investigations related to remediation areas will be conducted by a SQEP in accordance with CLMG No 5: Site Investigation and Analysis of Soils (MfE, 2021b).

## 8 Site Management Practices and Controls

The site management practices in Table 3 shall be implemented during all ground-disturbing unless advised otherwise by the Contaminated Land Specialist (e.g., following identification of cleanfill areas on-site through additional testing). Many of the required control measures are standard construction site procedures; however, the relevance and effectiveness of these protocols shall be reviewed by the Site Supervisor on a daily basis during work at the site.

During the works, a SQEP from the Contaminated Land Specialist company, shall visit the site to observe site activities and confirm that the works are being performed in accordance with this Draft Contaminated Site Management Plan (CSMP). The number of visits required will be subject to the staging and duration of works.

**Table 3: Site Management Practices**

<b>General Site Procedures</b>		<p>Contractor staff, subcontractors and visitors shall be inducted before entering the site or commencing work to ensure they are aware of the potential hazards relating to contaminated soil at the site.</p> <p>The following general safety procedures shall be followed by all staff entering or working in the immediate area of the earthworks:</p> <ul style="list-style-type: none"> <li>• Site workers shall avoid unnecessary contact with site soils.</li> <li>• Hands are to be washed in a dedicated area prior to eating, drinking or smoking.</li> </ul> <p>All incidents shall be reported to the main contractor's health and safety advisor, or equivalent responsible person on-site.</p>
<b>Personal Protective Equipment (PPE)</b>	<b>General</b>	<p>To minimise the effects of potential contamination exposure via incidental ingestion of soil, skin contact with soil or inhalation of dust the following should be considered over-and-above standard PPE requirements for construction sites (e.g. safety boots):</p> <ul style="list-style-type: none"> <li>• P2 Dust mask (if visible dust is present)</li> <li>• Work gloves / Coveralls (if contact with soil unavoidable)</li> <li>• Disposable gloves</li> <li>• Full face visors if wet conditions and splashes may occur.</li> <li>• Goggles / safety glasses</li> </ul>
	<b>Asbestos Specific</b>	<p>In the event that disturbance of asbestos contaminated soil is required, the following PPE requirements should be considered:</p> <ul style="list-style-type: none"> <li>• Half-face P3 respirator with particulate filter.</li> <li>• Disposable gloves and coveralls rated type 5, category 3.</li> <li>• Goggles / safety glasses</li> </ul>
<b>Boundary Controls</b>		<p>Security fencing and appropriate warning signs erected around earthworks areas to prevent unauthorised access.</p> <p>Appropriate sediment control measures shall be implemented to minimise sediment runoff from the site. Minimum controls shall include:</p> <ul style="list-style-type: none"> <li>• A stabilised site entrance to minimise the movement of soil off-site.</li> <li>• Suitable sediment controls (e.g. silt fencing) shall be placed around the perimeter of the works area and stormwater drains where there is a potential for runoff.</li> </ul> <p>Set up of clean and dirty areas to minimise tracking potentially contaminated soils around the site and off-site.</p>

<p><b>Equipment / Machinery decontamination</b></p>	<p>The following procedures for equipment decontamination have been developed to minimise transport of contaminated material from the work area.</p> <p>The following steps shall be undertaken for any equipment or machinery leaving any contaminated area:</p> <ul style="list-style-type: none"> <li>• Any machinery used on-site shall be cleaned of loose soil in a designated 'wash down' area (e.g. paved area or area of existing hardfill) prior to leaving site.</li> <li>• Once loose soil has been removed, the cleaned item can be moved to the clean area. Any wastewater generated should not be discharged off-site and should be allowed to drain back into the site.</li> <li>• Imported rock / utilised in the 'wash down area' and / or 'truck loading area' (if relevant) should be disposed of as contaminated material, unless tested.</li> </ul>
<p><b>Stockpiling</b></p>	<p>If temporary stockpiling of material from the identified contaminated areas (refer Table 2) is necessary, dust shall be controlled through wetting during the workday. If left overnight, the material shall be covered (e.g., with plastic) and protected by erosion / sediment controls (e.g., bunded).</p> <p>Stockpiles of contaminated material shall be located on an impermeable surface. If this is not possible, the underlying material should be considered potentially contaminated and shall be managed / disposed of appropriately.</p>

<p style="text-align: center;"><b>Groundwater</b></p>	<p>Shallow groundwater (ranging between 0.3 – 1 m bgl) was observed during intrusive investigations and is likely to be encountered in the event that excavation of soil is required.</p> <p>Dewatering may be required during earthworks, due to the shallow nature. Where it is likely that significant dewatering over an extended period of time it is recommended that advanced investigation by a SQEP to monitor and sample for groundwater quality is undertaken.</p> <p>For the purpose of general guidance the following advice is provided:</p> <ul style="list-style-type: none"> <li>• Where the results of advance testing show water quality is within ANZG (2018) assessment criteria for freshwater 80% criteria, water shall be directly discharged to ground or earthworks stormwater management systems subject to advanced notification and approval from BOPRC.</li> <li>• To ensure compliance with consent conditions, for the period that discharging occurs, regular inspection and sampling will be required to monitor quality of discharge.</li> <li>• Where the contractor wishes to dispose water in exceedance of ANZG (2018) freshwater 80% criteria to ground or stormwater systems a SQEP must provide further evidence that disposal can be achieved without incurring further adverse effects to nearby environmental receptors or water abstractions. This may be undertaken through detailed water quality risk assessment or fate and transport modelling in accordance with MFE guidelines or international best practice.</li> <li>• Where discharge to ground or earthworks stormwater management systems is not practicable for capacity or adverse quality reasons wastewater must be contained and disposed off-site to a receiving facility authorised to receive wastewater for treatment and disposal.</li> <li>• As an alternative to off-site treatment and disposal, the contractor may wish to consider alternative options to treat and dewater onsite such as use of in-situ or ex-situ pump and treat systems as part of dewatering methodology (e.g. use of filtration, flocculation, settlement, biological methods) to improve water quality prior to discharge to ground or appropriate wastewater/stormwater systems.</li> </ul>
<p style="text-align: center;"><b>Stormwater</b></p>	<p>Uncontrolled discharge of contaminated stormwater from earthworks sites shall not be permitted, therefore mitigation of any unexpected discharges will be required to be immediately implemented. If the on-site erosion and sediment control measures fail, a vacuum truck shall be called to site immediately so that the discharge of contaminated stormwater from site is eliminated. It may be necessary to test any such water removed off-site to identify an appropriate disposal site.</p>

<b>Drain Sediment Management</b>	<p>Where sediment removal is necessary from existing drains, further characterisation of the material will be undertaken to ensure proper disposal. Sediment extracted from drainage channels will be temporarily stockpiled to facilitate the collection of characterisation samples (refer to Table 4).</p> <p>Where feasible, the saturated sediments should be dried by stockpiling adjacent to the existing drains prior to transport, in order to minimise the risk of contaminant discharge during transit. Controls for the management of stockpiles must be implemented as outlined in this DRAFT CSMP. Upon completion of sediment removal, the stockpile footprints may require validation, subject to the suitability of the stockpiled materials for reuse within the development as determined by characterisation sampling.</p>
<b>Dust</b>	<p>Dust shall be managed in accordance with consent requirements and relevant regulations. The contractor shall consider the following (as appropriate):</p> <ul style="list-style-type: none"> <li>• Limit vehicle access onto the excavated areas as far as possible.</li> <li>• Dampen surface soil using a water truck or portable water sprays. Ensure that the volume of water used does not induce soil erosion, or cause surface ponding or runoff, that could discharge into natural water bodies or stormwater drains.</li> <li>• Use wind screens or avoid work during windy conditions.</li> <li>• Consider use of surfactants or polymers where a reliable source of water is not available.</li> </ul> <p>In the unlikely event that unsatisfactory dust emissions emanate from the site on a sustained basis or complaints are received in relation to the works, mitigation of the adverse effects shall be applied in accordance with the hierarchy of control described in the Health and Safety at Work Act 2015 (MBIE, 2015) - eliminate the risk, so far as is reasonably practicable; and if it is not reasonably practicable to eliminate a risk, to minimise those risks so far as is reasonably practicable.</p> <p>If the emission or discharges persist, professional advice shall be sought in order to define appropriate control measures. It is recommended that consultation with appropriate council representatives also be undertaken prior to recommencing works.</p>
<b>Odour</b>	<p>If excavated material is odorous, odour control measures shall be put in place. This could include covering the material with cleanfill, a polythene cover or instituting a deodoriser system.</p>

## 9 Disposal Management

If off-site disposal of soil is required, the following controls are to be implemented:

- Trucks shall be loaded within the site where runoff and possible spills during loading will be controlled and contained.
- Loads must be securely covered during off-site transport. Soil must be taken to an appropriate soil disposal facility authorised to accept the contaminants present.

- If soil in areas identified to pose a contamination risk is to be disposed of off-site, it may only be disposed of at appropriately licensed facilities.
- Outside of the identified areas of risk, soil being disturbed during redevelopment earthworks is suitable to remain on-site or will require disposal at a location suitably licensed to accept the material, further sampling and analysis may be required to provide confirmation, refer Section 9.1 below.

## 9.1 Disposal Testing

If material is to be taken off-site, further characterisation sampling will be required to inform appropriate disposal locations. Table 4 sets out the testing requirements for disposal.

**Table 4: Disposal Testing Requirements**

Item	Test Required	Requirement
Soil disposal – Identified risk areas (Refer Table 2)	Y	<p>Additional testing will likely be required to delineate the vertical and lateral extent of the impacted material from the identified risk areas where proposed for disturbance and off-site disposal,</p> <p>Delineation sampling will be undertaken in accordance with MfE CLMG No.5</p> <p>Samples shall be analysed for the specific contaminants of concern identified in Table 2.</p>
Soil disposal – Site wide topsoil (excludes identified risk areas)	Potential	<p>General characterisation to date has identified the potential for low level contamination within shallow soils associated with historic agricultural and horticultural use at the site.</p> <p>Additional soil characterisation may be undertaken to ascertain soil disposal classification (i.e. testing to determine if clean fill) following soil mixing and homogenisation during bulk earthworks.</p> <p>Testing shall be undertaken in accordance with the WasteMinz Technical Guidelines: Characterising Surplus Soil for Disposal, September 2024.</p> <p>At a minimum soil sample analysis shall include:</p> <ul style="list-style-type: none"> <li>• Heavy Metals; and</li> <li>• OCPs.</li> </ul> <p>And where visual or olfactory evidence of potential contamination is identified additional analysis should be undertaken. This may include:</p> <ul style="list-style-type: none"> <li>• Asbestos (semi-quantitative); and</li> <li>• Hydrocarbons (TPH, PAHs and BTEX).</li> </ul> <p>The testing data will be screened against landfill acceptance criteria(s). The results will determine whether further TCLP testing is required for leachable concentration of metals to meet Class A landfill TCLP criteria.</p> <p>Analysis of samples shall be undertaken at an International Accreditation New Zealand (IANZ) accredited laboratory</p>

Item	Test Required	Requirement
Unexpected discovery testing	Y	If encountered, in accordance with unexpected discovery protocols.
Dewatering and stormwater testing	Y	Testing to support dewatering shall be undertaken prior to dewatering commencing.
Imported material	Y	<p>Any materials imported for the project for the purpose of reinstating the ground, should be suitable to comply with the definition of 'cleanfill' (WasteMINZ, 2023).</p> <p>For any imported material, the following applies:</p> <ul style="list-style-type: none"> <li>• Imported material directly from quarries (virgin excavated natural material) does not require testing.</li> <li>• Any imported material acquired from an alternative source should be assessed by a SQEP to determine its appropriateness for use and to identify any potential discharge consent requirements.</li> <li>• Where no analytical data exists, the SQEP is likely to require sampling and testing at a minimum rate of one sample for every 500 m<sup>3</sup> with no less than three samples tested per source, testing shall as a minimum include: <ul style="list-style-type: none"> <li>○ Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn); and</li> <li>○ Asbestos (presence / absence).</li> </ul> </li> </ul> <p>Testing on materials with a major component (i.e. 50% or more by mass) with a particle size greater than 2 mm may differ from that prescribed above and will be determined by the SQEP.</p> <ul style="list-style-type: none"> <li>• Analysis of samples shall be undertaken at an International Accreditation New Zealand (IANZ) accredited laboratory.</li> </ul>

## 10 Asbestos Controls

The objective of the asbestos controls is to eliminate personal exposure to airborne asbestos on and off-site, so far as reasonably practicable. In accordance with the WorkSafe Approved Code of Practice (herein referred to as 'the ACOP'; WorkSafe, 2016), if it is not reasonably practicable to eliminate personal exposure to airborne asbestos, exposure must be minimised, so far as is reasonably practicable through such controls as described in this section of the Draft Contaminated Site Management Plan (CSMP).

The scope of works covered by this Draft Contaminated Site Management Plan (CSMP) includes the excavation, management and disposal of soil impacted with asbestos and has been designed to meet the Safe Work Practices specified in the ACOP (WorkSafe, 2016), and the NZGAMAS (BRANZ, 2024), and include the requirements of an asbestos removal plan. As the NZGAMAS is referenced in the WorkSafe ACOP (herein referred to as 'the ACOP'; WorkSafe, 2016), the guideline or higher level of controls are required to be adhered to.

If asbestos impacted soils are required to be removed or disposed of as part of the redevelopment works, the controls for the relevant asbestos works classification in Appendix 1 shall be implemented, the objective of these asbestos controls is to eliminate personal exposure to airborne asbestos on and off-site, so far as reasonably practicable. Where asbestos is confirmed at Class A or B licenced concentrations a suitably qualified asbestos removal contractor should be engaged to manage risks associated with friable asbestos within these areas and supervise all site activities.

In accordance with the WorkSafe Approved Code of Practice, if it is not reasonably practicable to eliminate personal exposure to airborne asbestos, exposure must be minimised, so far as is reasonably practicable.

The Contaminated Land Specialist shall assess the appropriate level of asbestos controls to be implemented. In the event that an Asbestos Removal Control Plan (ARCP) is implemented for areas of the site, this will take precedence over controls outlined in this DRAFT CSMP.

## 11 Unanticipated Ground Conditions

Should any unanticipated contaminated material be uncovered during earthworks, works shall stop in that area and a SQEP from the Contaminated Land Specialist company shall be called out to assess the potential risk and advise on what measures should be taken to manage the soil in that area.



Typical indicators of contamination include but are not limited to:

- Buried waste (for example drums or tanks with unknown liquid).
- Odour (petroleum hydrocarbons, oil).
- Discoloured soil (black, purple, or green staining most common).
- Asbestos containing materials (ACM) as fragments are visible with the naked eye.
- Uncontrolled fill material.

Examples of typical indicators of contamination have been provided in Table 5.

**Table 5: Typical Indicators of Contamination**



<p><b>Asbestos Containing Material</b></p> <p>Intact sheets or broken into smaller pieces, may be mixed with other material</p>	
<p><b>Separate-Phase Hydrocarbons</b></p> <p>Black liquid, odours, sheen</p>	

## 12 Documentation

In order to demonstrate that the requirements of this Draft Contaminated Site Management Plan (CSMP) have been adhered to, the documents listed in Table 6 should be forwarded from the Contaminated Land Specialist company in the timeframes stipulated below. These documents will be included in a completion report for the site (discussed further in Section 13).

**Table 6: Contractor Documentation**

<p><b>Prior to Earthworks Commencing</b></p>	<ul style="list-style-type: none"> <li>• Written confirmation from the proposed disposal site(s) confirming that they are able to accept excess material from the site and stating which type of material.</li> <li>• For any material that is to be imported to the site as cleanfill on the basis of direct testing, a copy of the analytical laboratory test report must be provided prior to transport.</li> </ul>
<p><b>Within Two Weeks of Earthworks Being Completed (or on an ongoing basis during works)</b></p>	<ul style="list-style-type: none"> <li>• Daily site photographs showing the site entrance, the area of work, sediment control measures and any stockpiles resulting from the works.</li> <li>• A site plan showing any areas where site-won material (cleanfill or controlled material only) has been reused.</li> <li>• Disposal dockets for each load of material that is removed from the site. The dockets should contain the following information: <ul style="list-style-type: none"> <li>○ Date and time dispatched.</li> <li>○ Material description.</li> <li>○ The volume of material in the load.</li> <li>○ Haulage contractor details (name, address, contact person, contact telephone number).</li> <li>○ Truck and trailer registration number.</li> <li>○ The destination of material.</li> </ul> </li> <li>• Documentation for <b>all imported fill</b> which shall include: <ul style="list-style-type: none"> <li>○ Date and time dispatched.</li> <li>○ Address of source site.</li> <li>○ Type and proposed use of material.</li> <li>○ Weight and / or volume of material carried.</li> <li>○ Basis for treating the material as cleanfill (e.g., directly tested and confirmed to be cleanfill or directly sourced from a licensed quarry).</li> </ul> </li> <li>• Information relating to any incidents or complaints and how these were managed.</li> </ul>

### 13 Completion Reporting

Upon completion of site development activities, a Summary of Works or Works Completion Report is required. This report, prepared in accordance with MfE CLMG No. 1 by a qualified Contaminated Land Specialist, should provide a thorough account of the earthworks, including any discovery of additional contamination and site observations. The documentation must also detail the disposal of contaminated soil and fill, the use and management of personal protective equipment (PPE), and records related to the importation of cleanfill, if relevant.

## 14 Limitations

- i. We have prepared this report in accordance with the brief as provided. This report has been prepared for the use of our client, Bell Road Limited Partnership, their professional advisers, the relevant Territorial Authorities and the appointed Fast Track Panel in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.
- ii. The recommendations in this report are based on the ground conditions indicated from published sources, site assessments and subsurface investigations described in this report based on accepted normal methods of site investigations. Only a limited amount of information has been collected to meet the specific financial and technical requirements of the client's brief and this report does not purport to completely describe all the site characteristics and properties. The nature and continuity of the ground between test locations has been inferred using experience and judgement and it should be appreciated that actual conditions could vary from the assumed model.
- iii. Subsurface conditions relevant to construction works should be assessed by contractors who can make their own interpretation of the factual data provided. They should perform any additional tests as necessary for their own purposes.
- iv. This Limitation should be read in conjunction with the Engineering NZ / ACENZ Standard Terms of Engagement.
- v. This report is not to be reproduced either wholly or in part without our prior written permission.

## 15 References

ANZG 2018. Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia.

BRANZ, 2024. New Zealand Guidelines for Assessing and Managing Asbestos in Soil. The Building Research Association New Zealand.

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MfE, 2021a. Contaminated Land Management Guidelines No.1: Reporting on Contaminated Sites in New Zealand, Ministry for the Environment (revised 2021).

MfE, 2021b. Ministry for the Environment. (2021). Contaminated Land Management Guidelines No.1: Site Investigation and Analysis of Soils (revised 2021)..

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

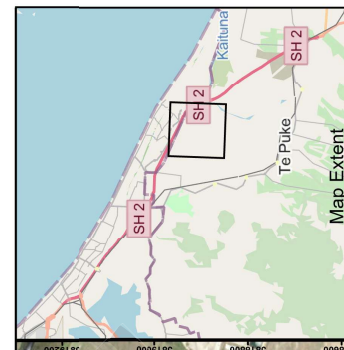
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WasteMINZ, 2024. Technical Guidelines: Characterising Surplus Soils for Disposal.

Worksafe, 2016. Approved Code of Practice: Management and Removal of Asbestos.

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## FIGURES



**Legend**

- Desktop Only Areas
- Site Boundaries
- Land Parcels



Note: White hatched areas indicate desktop review only

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Map Image: Eagle Technology.



PROJECTION: NZGD 2000 New Zealand Transverse Mercator



Tauranga Office  
1/314 Maunganui Road  
Mount Maunganui, Tauranga 3116  
Tel: 07 777 0209, www.engeo.co.nz

Title:

Site Location

Client:	Bell Road Limited Partnership	Figure No:	
Project:	Wairakei South Development	Designed:	CR
		Drawn:	CR
		Checked:	AG
		Date:	Dec 25
		Size:	A3
Proj No:	19630.000.001	Scale:	1:11,500
		Revision:	A



Area	Address	Parcels
A1, A2 and A3	252 Bell Road, Papamoa	Part Lot 1 DP 29530
B1	285 Bell Road, Papamoa	Lot 2 DPS 81677, Section 26 SO 427562, Lot 1 DPS 54113
B2	285 Bell Road, Papamoa	Lot 1 DP 537375, Lot 2 DP 537375, Lot 1 DPS 69524, Section 26 SO 427562
B3	285 Bell Road, Papamoa	Section 12 SO 458365
B4	285A Bell Road, Papamoa	Lot 1 DPS 81677, Lot 2 DPS 69524, Section 26 SO 427562
B5	339 Bell Road, Papamoa	Section 1 SO 457222, Section 13 SO 458365, Lot 2 DP 537375
C1	314D Bell Road, Papamoa	Lot 2 DP 553506
C2	314 Bell Road, Papamoa	Lot 1 DP 553506, Lot 2 DP 553506

DATE PLOTTED: 17 December 2025 10:14 AM BY: C/Johnson  
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- Legend**
- Investigation Areas
  - Risk Type**
  - Area of potential ecological risk
  - Area of potential human health and ecological risk
  - Area of potential human health risk

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Map Image: Eagle Technology.



PROJECTION: NZGD 2000 New Zealand Transverse Mercator



Tauranga Office  
1/314 Maunganui Road  
Mount Maunganui, Tauranga 3116  
Tel: 07 777 0209, www.engeo.co.nz

Title: **Key Risk Areas - Area A1**

Client: Bell Road Limited Partnership	Figure No:
Project: Waikarekei South Development	Designed: CR
	Drawn: CR
	Checked: AG
Proj No: 19630.000.001	Date: Dec 25
	Size: A3
	Scale: 1:3,000
	Revision: A

ORIGINAL FIGURE PRINTED IN COLOUR



- Legend**
- Investigation Areas
  - Risk Type**
  - Area of potential ecological risk
  - Area of potential human health and ecological risk
  - Area of potential human health risk

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 Map Image: Eagle Technology.



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**Tauranga Office**  
 1/314 Maunganui Road  
 Mount Maunganui, Tauranga 3116  
 Tel: 07 777 0209, www.engeo.co.nz

Title: **Key Risk Areas - Area A3**

Client: Bell Road Limited Partnership	Figure No:
Project: Waikarekei South Development	Designed: CR
	Drawn: CR
	Checked: AG
Proj No: 19630.000.001	Date: Dec 25
	Size: A3
	Scale: 1:2,500
	Revision: A

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 DATE: P1-017250 - 17 December 2025 11:47 AM BY: C/0000000



- Legend**
- Investigation Areas
- Risk Type**
- Area of potential ecological risk
  - Area of potential human health and ecological risk
  - Area of potential human health risk

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**Tauranga Office**  
 1/314 Maunganui Road  
 Mount Maunganui, Tauranga 3116  
 Tel: 07 777 0209, www.engeo.co.nz

Client: Bell Road Limited Partnership		Figure No:
Project: Wairakei South Development		Designed: CR
		Drawn: CR
		Checked: AG
Title: <b>Key Risk Areas - Areas B2, B4 &amp; B5</b>		Date: Dec 25
Proj No: 19630.000.001		Size: A3
		Scale: 1:5,300
		Revision: A

ORIGINAL FIGURE PRINTED IN COLOUR



- Legend**
- █ Investigation Areas
  - Risk Type**
  - █ Area of potential ecological risk
  - █ Area of potential human health and ecological risk
  - █ Area of potential human health risk

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**Tauranga Office**  
 1/314 Maunganui Road  
 Mount Maunganui, Tauranga 3116  
 Tel: 07 777 0209, www.engeo.co.nz

Title:

**Key Risk Areas - Area C1**

Client:	Bell Road Limited Partnership	Figure No.:	
Project:	Waikarekei South Development	Designed:	CR
		Drawn:	CR
		Checked:	AG
		Date:	Dec 25
		Size:	A3
Proj No:	19630.000.001	Scale:	1:850
		Revision:	A



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**Appendix 1:**  
Asbestos Controls

# Wairakei South Development Asbestos Controls

Scenario (NZ GAMAS 2017 definitions)	Control Measure Objectives	Unlicensed Asbestos Work	Asbestos-related Work	Class B: non-friable	Class A: friable	Source Guideline Reference
FA/AF % w/w in soil		≤ 0.001	> 0.001	> 0.01	> 1	
ACM % w/w		≤ 0.01%	> 0.01	> 1	-	
Scale, soil volume		≤ NESCS	> NESCS	-	-	
Asbestos in air		< 0.01 f/mL in air	< 0.01 f/mL in air	≥ 0.01 f/mL in air	≥ 0.01 f/mL in air	

## REMOVAL WORKS RESPONSIBILITIES

Remedial Works Supervision / Oversight	A Suitably Qualified and Experienced Practitioner (Contaminated Land – refer to NESCS)	Class B Supervisor	Class A Supervisor	ACOP
WorkSafe Notification	Not required	Notification five days before earthworks are to be undertaken	Class A Supervisor	ACOP
Contractor License Requirements	Not required	Class B License	Class A License	ACOP
Training/Certification Requirements	Non-certified training in asbestos identification, safe handling and suitable controls. A copy of the training shall be kept on record.	Certified training for workers. Certified, competent supervisors.	Certified training for workers. Certified, competent supervisors. Certified safety management system.	Figure 17 ACOP

## SITE SET-UP

Boundary Controls	Physical barriers must be in place to prevent unauthorised access. Physical barriers must be in place to prevent unauthorised access. Warning signs must be present that clearly show that asbestos related works are underway.	Physical barriers must be in place to prevent unauthorised access. Polythene sheeting may be necessary to prevent spread of airborne fibres outside of works area. Warning signs must be present that clearly show that asbestos removal works are underway.	Physical barriers must be in place to prevent unauthorised access. Consider use of solid hoarding placed at a suitable distance beyond the works area, or full enclosure. Warning signs must be present that clearly show that asbestos removal works are underway.	ACOP
Personal Decontamination Facilities	Educate site workers to minimise contact with soil. Provide a boot wash and lidded and plastic lined bin for secure disposal of used PPE.	Basic disposable decontamination tent and boot wash.	Basic disposable wet decontamination tent or trailer.	NZ GAMAS Table 6

# Wairakei South Development Asbestos Controls

Scenario (NZ GAMAS 2017 definitions)	Control Measure Objectives	Unlicensed Asbestos Work	Asbestos-related Work	Class B: non-friable	Class A: friable	Source Guideline Reference
FA/AF % w/w in soil		≤ 0.001	> 0.001	> 0.01	> 1	
ACM % w/w		≤ 0.01%	> 0.01	> 1	-	
Scale, soil volume		≤ NESCS	> NESCS	-	-	
Asbestos in air		< 0.01 f/mL in air	< 0.01 f/mL in air	≥ 0.01 f/mL in air	≥ 0.01 f/mL in air	
<p>Minimise the size of the earthworks areas and time exposed to the elements. Stabilise exposed earth surfaces as soon as possible following works.</p>						
Dust / Asbestos Fibre Suppression	<p><b>OBJECTIVE:</b> Minimise the release of asbestos fibres from soils.</p>	<p>Spray mist water via localised points. Consider use of surfactants or polymers where a reliable source of water is not available. Consider implementing additional controls (as per Class B works) if sensitive receptors nearby (such as adjacent to busy centres, schools).</p>	<p>Spray mist water via localised points. Addition of surfactants and polymers where the location is sensitive (such as adjacent to busy centres, schools) or if a source of water is not readily available. Consider temporary cover of contaminated areas awaiting remediation.</p>			NZ GAMAS Table 6
<b>OCCUPATIONAL HEALTH AND SAFETY</b>						
Personal Protective Equipment & Respiratory Protective Equipment	<p><b>OBJECTIVE:</b> Minimise workers exposure to asbestos fibres. Reduce accidental transport of asbestos contaminated soils off site on workers clothing, boots.</p>	Educate site workers to minimise contact with soil; to clean equipment and to undertake activities in a manner that reduces dust.	Disposable coveralls rated type 5, category 3, nitrile gloves Steel toe capped gumboots are preferred as these can be readily washed down. Disposable overshoes can be used to prevent contamination of faces.			NZ GAMAS Table 6
		Disposable P2 dust mask recommended.	Half-face P3 respirator with particulate filter. Consider increasing to full-face if friable ACM present.	Full-face P3 respirator with particulate filter. Consider increasing to power-assisted if required.		NZ GAMAS Table 6 Refer to Part C section 14 of the ACOP and AS/NZS 1715:2009 for more information
Contractor Health Monitoring	<p><b>OBJECTIVE:</b> Mitigate risks to workers from the potentially harmful effects of asbestos through the workplace.</p>	The contractor must ensure that worker health monitoring is undertaken in accordance with the Asbestos Regulations Clause 15 and 16.	In accordance with the Asbestos Regulations Clause 15 and 16, a PCBU must ensure that health monitoring is provided to workers involved in more than four weeks of Class B work in any twelve-month period. Refer ACOP Section 16			ACOP Section 16

# Wairakei South Development Asbestos Controls

Scenario (NZ GAMAS 2017 definitions)	Control Measure Objectives	Unlicensed Asbestos Work	Asbestos-related Work	Class B: non-friable	Class A: friable	Source Guideline Reference
FA/AF % w/w in soil		≤ 0.001	> 0.001	> 0.01	> 1	
ACM % w/w		≤ 0.01%	> 0.01	> 1	-	
Scale, soil volume		≤ NESCS	> NESCS	-	-	
Asbestos in air		< 0.01 f/mL in air	< 0.01 f/mL in air	≥ 0.01 f/mL in air	≥ 0.01 f/mL in air	
<b>MONITORING PROCEDURES</b>						
Air Monitoring	Responsibility	SOQEP / Competent Person	SOQEP / Competent Person	Independent Licensed Asbestos Assessor OR Independent Competent Person as defined within Section 30.4 of the ACOP	Independent Licensed Asbestos Assessor	Section 30.4 of the ACOP
	Requirement	<p>OBJECTIVE: Provide a clear expectation of who is responsible for undertaking monitoring, and that the person has the appropriate skills and knowledge to do so.</p> <p>To provide verification that works have been safely undertaken.</p> <p>To provide early warning of potentially harmful levels of exposure.</p> <p>To identify when asbestos is present in air at a concentration that presents an unacceptable risk to site workers and surrounding receptors.</p>	Air monitoring is not required for Unlicensed Asbestos works, or Asbestos Related works (as defined under the NZ GAMAS) however it is recommended where possible to provide assurances regarding cross contamination and protection of workers.	If the SOQEP or competent person considers that the trace level of 0.01 f/ml may be exceeded, then air monitoring must be undertaken.	Air monitoring must be conducted before and during Class A asbestos removal work.	NZ GAMAS Section 5.5
	Compliance	<p>Implement additional control measures when necessary.</p> <p>Undertake works by persons who have been trained to manage the risks associated with asbestos.</p>	If the concentration exceeds 0.01 f/ml then works are Class B or Class A works under the NZ GAMAS definition.	All results shall be below 0.01 fibres / ml. < 0.01 f/ml – continue with works > 0.01 f/ml – investigate the cause and implement additional controls > 0.02 f/ml – stop works and investigate, notify WorkSafe > 0.1 f/ml – Remedial works required. PCBUs with management or control of workplace are to ensure that exposure of a person at the workplace to airborne asbestos is eliminated so far as is reasonably practicable.		
<b>SITE CONTROLS</b>						
Vehicle Decontamination	Vehicle assessment before demobilisation from site	<p>OBJECTIVE: Minimise the potential for accidental transport of contaminated soils or asbestos fibres out of the works areas on, or in vehicles.</p>	Minimise vehicle transport onto site areas containing asbestos soils, or in locations where asbestos fibres may be present in air. Visual assessment.	Visual (plus swab samples if friable ACM) is elsewhere on-site – lagging, insulation, etc).	Visual plus swab samples, air sampling should be undertaken inside the cab.	NZ GAMAS Table 7
	Vehicle assessment completed by	Competent person or SOQEP.	Competent person or SOQEP.	Independent licensed assessor or independent competent person (meeting the requirements of regulation 41(3) under the Asbestos Regulations).	Independent licensed assessor.	NZ GAMAS Table 7
	Truck/excavator air conditioning	<p>OBJECTIVE: To prevent the contamination of internal spaces of equipment where people work and to avoid worker exposure to asbestos fibres.</p>	Standard air conditioning.	HEPA filter system fitted for all occupied vehicles where friable ACM on-site.	HEPA filter system fitted for all occupied vehicles, filter replaced or clean down with HEPA vacuum cleaner post work.	NZ GAMAS Table 7

# Wairakei South Development Asbestos Controls

Scenario (NZ GAMAS 2017 definitions)	Control Measure Objectives	Unlicensed Asbestos Work	Asbestos-related Work	Class B: non-friable	Class A: friable	Source Guideline Reference
FA/AF % w/w in soil		≤ 0.001	> 0.001	> 0.01	> 1	
ACM % w/w		≤ 0.01%	> 0.01	> 1	-	
Scale, soil volume		≤ NESCS	> NESCS	-	-	
Asbestos in air		< 0.01 f/mL in air	< 0.01 f/mL in air	≥ 0.01 f/mL in air	≥ 0.01 f/mL in air	
<b>MANAGEMENT OF CONTAMINATED MATERIAL</b>						
<b>Stockpiles of impacted soils</b>	<p><b>OBJECTIVE:</b> To minimise the release of asbestos fibres into air.</p> <p>Asbestos contaminated material is to be appropriately transported and disposed in a location where the material presents no unacceptable human health risk.</p>	<p>Stockpiles should be avoided where possible to ensure that exposed areas of soil are minimised. All temporary stockpiled asbestos contaminated material which is created and not proposed to be immediately moved should be covered. Stockpiles shall be located on an impermeable surface within an area protected by erosion and sediment controls. Consider covering stockpiles with polythene.</p>				NZ GAMAS Section 6.6
<b>Used PPE</b>	<p>To track the movement of contaminated materials.</p>	<p>All disposable PPE used during remediation of asbestos impacted soil should be placed in a 200 micron HDPE plastic bag within the decontamination area. The bag should be taped closed (in a goose neck fashion) after each item is added and kept damp via the addition of water. Once full, the bag should be double bagged (200 micron HDPE) and labelled "Asbestos hazard – wear respirator and protective clothing while handling contents".</p>				NZ GAMAS Section 6.6
<b>Contaminated Soil</b>	<p>To track the movement of contaminated materials.</p>	<p>The location of any soils retained on-site shall be recorded on as built drawings.</p> <p>The receiving facility should be contacted in advance of the soil disposal to verify the requirements for receiving the wastes.</p> <p>Trucks shall have their loads securely covered during off-site transport of material.</p> <p>Waste manifests should be completed and retained for all off-site disposal of soils.</p> <p>Site records shall be cross checked against receipts of soil disposal from the receiving facility.</p> <p>The bins / skips or trucks shall be loaded within the site where runoff and possible spills during loading will be controlled and contained.</p>				NZ GAMAS Section 6.6
<b>Contaminated Water</b>		<p>Special waste bins / skips or trucks, approved for the transport of ACM to the appointed licensed landfill facility shall be placed on-site. The bins / skips or trucks will be lined / wrapped in accordance with requirements of receiving facility.</p> <p>It is recommended that any soil which contains asbestos in concentrations &gt;0.001% w/w is considered hazardous and the controls stated in the Land Transport Rules adopted. For asbestos soil waste in significant quantities, hazard label signage should be displayed on the vehicles transporting the soil for disposal.</p> <p>Water used for cleaning asbestos-contaminated equipment (including vehicles) shall be placed into a drum or skip and disposed of at an appropriately licensed facility.</p> <p>If excessive water is applied, ponding or runoff may occur which could permit the transport and accumulation of asbestos fines outside of the site. Water from the work area should be retained inside the boundary of the site and wash water directed back into excavations and the site.</p>				NZ GAMAS Section 6.6