

Contamination Site Management Plan (CSMP) – Ohiti Road Stopbanks

Project: Ohiti Road Stopbank

T+T Project No.: 1017353.2402

Introduction

Hawkes Bay Regional Council (HBRC) has engaged Tonkin & Taylor Ltd (T+T) to prepare this contamination site management plan (CSMP). The CSMP has been prepared to manage ground contamination, and to outline the procedures for the appointed contractor to follow during the proposed construction of the Ohiti Road Stopbanks (herein referred to as “the site”). The site is shown in Figures A.1 and A.2. This CSMP has been prepared to accompany the Construction Environmental Management Plan (CEMP) required under condition 10 of the Order in Council (OiC).

Contamination Condition and Basis for Procedures

A Preliminary Site Investigation (PSI) and Detailed Site Investigation (DSI) Report was prepared in July 2025¹. Potentially contaminating activities included in the Ministry for the Environment’s (MfE) Hazardous Activities and Industries List (HAIL²) have been undertaken on site including the presence of a former orchard or vineyard, burning of waste, storage of chemicals and other materials, buildings containing asbestos containing material (ACM), and stockpiles containing building debris including asbestos containing material. As soil disturbance is proposed in areas where HAIL activities have or have potentially occurred, the NESCS regulations³ apply and the OiC contaminated land provisions (Condition 17) are triggered.

Site investigations were undertaken to target HAIL (and potential HAIL) activities and areas where soil disturbance is proposed in May 2025. Contamination conditions are summarised below. **Relevant areas and sample locations are shown on Figures A.1 and A.2.**

- Two isolated exceedances of human health criteria were identified:
 - **Contaminated Area 1 (CA1):** Arsenic concentration of 260 mg/kg above the NESCS soil contaminant standards (SCS) for commercial/industrial land use criteria (70 mg/kg) at sample location SS24 associated with the storage of miscellaneous items on unsealed ground at the rear of 157 Ohiti Rd. The contamination is likely limited to surface soils (0-0.2 m depth). The extent of the contamination hotspot has not been delineated. Pre-works soil testing is recommended to confirm the extent of impacted soils with respect to earthworks plans in this part of the site.
 - **Asbestos Management Area 1 (AMA1):** Fibrous asbestos and asbestos fines (FA/AF) above the New Zealand Asbestos in Soil⁴ risk-based guideline value (0.001 % w/w) within the building halo at 131 Taihape Road (sample SS27). Impacted soils are expected to be limited to the upper 0.1 m deep, in a 2 m halo around the shed. Asbestos specific management controls (as set out in the Asbestos Regulations⁵ and New Zealand asbestos in soil guidelines⁴) for ‘*low level asbestos contamination*’ will need to be implemented during soil disturbance.
- Environmental criteria for one or more heavy metal analytes were exceeded at two soil sample locations (SS14 and SS24). The extent of the hotspot at SS14 is likely restricted to the surface soils (up to 0.2 m) beneath and with a 1 m radius of a burn barrel. Sediment and water discharges will need to be managed when disturbing this soil around SS14 and SS24.
- **AMA2:** Stockpiled material at the rear of 203 Ohiti Road (sample OH_SS01) contained an asbestos concentration below the New Zealand Asbestos in Soil human health risk-based guideline value, requiring implementation of ‘*trace asbestos contamination controls*’ for disturbance of these soils.
- Overall, soil at the site is suitable for reuse as stopbank construction fill, except for material stockpiled at the rear of 203 Ohiti Road (sample SS19) (Contaminated Area 2 (**CA2**)) and near surface soil around the rear of 157 Taihape Road (CA1). CA1 and CA2 hot spots could be remediated and disposed offsite as part of early works. Asbestos impacted soil can be used at depth as stopbank fill or disposed offsite. The location of reused asbestos impacted soil will need to be recorded in an asbestos register.

Roles and responsibilities

- This CSMP provides a framework for managing contamination hazards on site by identifying potential risks due to known chemical and mineral impacts and suggesting mitigation measures. It provides information and recommendations to augment this process but is not intended to relieve the person conducting business or undertaking (PCBU) of either their responsibility for the health and safety of their workers, contractors and the public, or its responsibility for protection of the environment.
- Any persons undertaking ground disturbance works on the site must develop a site-specific risk assessment (such as a job safety analysis (JSA), or similar) to complement this CSMP and to address all relevant health and safety requirements that may be applicable to their particular works. The site-specific risk assessment must also be modified to address any specific health, safety or environmental issues that may subsequently arise during the works.
- A copy of the current approved CSMP shall be kept onsite by the Contractor appointed by HBRC at all times during construction activities.

¹ T+T, July 2025. Ohiti Stopbank. Preliminary and Detailed Site Investigation. T+T ref 1017353.2402 v3.

² Ministry for the Environment, 2011. Hazardous Activities and Industries List (HAIL).

³ Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

⁴ BRANZ, 2024. New Zealand Guidelines for assessing and managing asbestos in soil.

⁵ Ministry of Business, Innovation, and Employment, February 2016. Health and Safety at Work (Asbestos) Regulations.

- This CSMP is a live document. Statutory requirements, operating procedures, development plans, or site conditions may vary and may require that this plan be amended or updated. Any variations to the CSMP proposed by the Contractor must be approved by HBRC (Regulatory) and the Contaminated Land Specialist (CLS) prior to works commencing, or the variation being implemented if works have already commenced. It is the responsibility of the appointed Contractor to distribute any changes to the plan to their staff and sub-contractors involved in the construction works and update the site copy.

Organisation/person:	Responsibility:
HBRC	Consent holder: Accountable for ensuring compliance with consent conditions including the requirements of the CSMP and engaging a CLS during the works as required.
HBRC (Regulatory)	Monitoring and compliance of conditions and rules under the OiC and regional plan.
Main Contractor (the Contractor)	Responsible for implementation of CSMP during earthworks, including monitoring compliance of all Sub-contractors with the requirements for the CSMP.
Contaminated Land Specialist (CLS)	Responsible for provision of ground contamination advice during the works. The CLS shall be a SQEP as required by the NESCS and defined in the NESCS Users' Guide ⁶ . The CLS may be required to undertake site inspections during earthworks to verify the requirements of this CSMP and applicable OiC conditions are met. Ad hoc advice and inspections may be required for example if unexpected contamination is encountered (e.g. asbestos pipes).
Heretaunga Hastings District Council (Regulatory)	Monitoring and compliance of consent conditions and rules under the district plan.

Development area and contamination management controls

Site Management Procedures: [Table 1](#) provides the controls and procedures to manage the ground contamination risk during the proposed works.

Applicability. This plan has been prepared for the benefit of HBRC in accordance with our proposal of 8 April 2024 and subsequent variations. This report may not be relied upon in other contexts or for any other purpose without our prior review and agreement.




The plan has been prepared on the basis of information in our possession at the date of preparation. The nature and continuity of soil conditions away from sample locations are inferred and it must be appreciated that actual conditions could vary from the assumed model.






Document control

Date	Issue No	Description	Prepared by:	Approved by SQEP:
8 August 2025	1	CSMP to append to the CEMP	S. Myers-Hutchings	A. Davies-Colley
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⁶ Ministry for the Environment, 2012. Users' Guide - National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health

Table 1: Contamination management controls

Earthworks Practise	Contamination specific management
 <p>Site establishment</p>	<ul style="list-style-type: none"> Establish standard earthworks controls for dust, erosion, sediment, and stormwater. Prior to works commencing the work areas shall be appropriately fenced or otherwise cordoned off to prevent access by the general public. Hazard board shall state contaminated soil may be present and indicate health and safety requirements for workers (refer to 'Health effects' information below). Obtain additional PPE: Disposable nitrile gloves and P2 dust masks. Disposable coveralls and disposable P2 dust masks will be required for 'Low level asbestos contamination' work in AMA1 (refer to Table 2 and Figure A1). Additional PPE is not required for AMA2, unless further suspected asbestos fragments are encountered. Potential for ground contamination to be addressed in the contractor's health and safety plan. If required, arrange disposal permits for excavated soil to be disposed to an appropriate waste disposal facility. HBRC or their nominated contractor should engage a suitably qualified CLS to provide advice during the work and respond if unexpected contamination is encountered.
 <p>Health effects</p>	<ul style="list-style-type: none"> The investigation data indicates that the presence of soil contamination is unlikely to present a risk to human health during earthworks, with the exception of soil disturbance within CA1 and AMA1. Controls for AMA1 are outlined in the Asbestos controls. Controls for CA1 include disposable nitrile gloves for workers in contact with soil and decontamination including hand wash and boot wash exiting CA1. Vehicles must be inspected prior to leaving the works area and wheels brushed / cleaned as required to avoid sediment being tracked offsite. <p>Potential health effects from the levels of contaminants encountered during soil disturbance will be managed principally by avoiding direct contact with soils and ensuring good personal hygiene practices are implemented during the works (i.e. washing hands before eating and during breaks and avoiding hand to face contact). Additionally, dampening of soils during works to reduce potential inhalation of contaminants via dust, if required.</p>
 <p>Asbestos controls</p>	<p>Asbestos controls relate to soil disturbance in two areas of the site. These areas are referred to as AMA1 and AMA2, as shown on Figure A1, Appendix A. The asbestos controls to be implemented are:</p> <ul style="list-style-type: none"> AMA1: <i>Low level asbestos contamination controls</i> for soil disturbance within the building halo at the rear of 131 Taihape Road. Table 2 provides the controls required to be implemented. AMA2: <i>Trace asbestos contamination controls</i> for the stockpile of building debris behind 203 Ohiti Road. Table 3 provides the controls required to be implemented. If suspected asbestos fragments are encountered exceeding 10 m² (the threshold for unlicensed work), the accidental discovery procedures described below shall be implemented and a CLS contacted for further advice.
<p>Spoil disposal</p>	<ul style="list-style-type: none"> Offsite disposal of spoil is not proposed. However, if soil is not suitable for reuse for the construction of the stopbanks and cannot be otherwise retained onsite such as CA1 and CA2, it may need to be disposed of offsite. Based on the toxicity characteristic leaching procedure (TCLP) testing undertaken, all soil is suitable for disposal at Ōmarunui landfill. More cost effective disposal options are expected for no/low level contaminated material.
 <p>Transportation and stockpile management</p>	<p>Transportation and stockpile management:</p> <ul style="list-style-type: none"> Vehicles must be inspected prior to leaving the works area and wheels brushed / cleaned as required to avoid sediment being tracked offsite, particularly important for CA and AMA area. If trucks are carrying spoil, their loads should be covered prior to leaving site. The details of each load (e.g. truck registration number, tracking dockets) shall be recorded for any spoil leaving site. Stockpiling of contaminated or potentially contaminated soil shall be avoided where possible, if required: <ul style="list-style-type: none"> Stockpiles must have adequate silt and erosion controls installed (e.g. cut off drains, silt fences and silt socks) and should not occur during heavy rain periods or be left overnight without being covered without being covered (e.g. with polythene sheet). Stockpiles must not be higher than 3 m in height. Stockpiles must be kept within secured areas so that unauthorised personnel cannot access the stockpile.
 <p>Soil importation</p>	<p>All soils imported to site must be either hardfill sourced direct from a consented quarry or the meet with the following:</p> <ul style="list-style-type: none"> Be derived from a source, which is previously verified in accordance with the methods described in the NESCS, as being a piece of land to which the NESCS do not apply. Have been adequately investigated in accordance with MfE Contamination Land Management Guidelines No.5 – Site Investigation and Analysis of Soils (CLMG No.5, Revised 2021) by a CLS to be suitable for use as part of the stopbank construction and (if applicable) shall meet imported material requirements set out in the earthworks consents and/or OiC requirements. In all cases the testing information shall be provided to the CLS for approval prior to the materials being imported to site.

Earthworks Practise	Contamination specific management
 Dust discharges	<ul style="list-style-type: none"> To be implemented in accordance with standard earthworks practices. Dust will be managed by maintaining damp conditions using water sprays in areas of ground disturbance / excavation. Dust controls shall comply with the applicable Council guidelines, regulations and other applicable legislation. Works shall cease if the contractor or CLS deem wind conditions are too high, or dust cannot be mitigated.
 Sediment discharges	<ul style="list-style-type: none"> These effects will be managed by the Contractor ensuring that no debris or spoil generated by the works is allowed to be discharged to the stormwater system or nearby surface water. Erosion and sediment control shall be installed prior to soil disturbance works and managed in accordance with the applicable Council's guidelines and other applicable legislation, including where necessary the use of silt fences and runoff diversion bunds (as appropriate) and filter cloths / mats installed over stormwater cesspits. Soil must be reinstated to an erosion-resistant state within one month of completion of the soil disturbance works.
 Water discharges	<ul style="list-style-type: none"> Clean water shall be diverted away from areas of ground disturbance / excavation. Wherever possible runoff accumulating in areas of ground disturbance / excavation will be retained onsite to soak away.
 Monitoring requirements	<ul style="list-style-type: none"> Monitoring of earthworks controls will be implemented during the works to ensure controls are being implemented appropriately. The frequency of monitoring will be dependent on the nature of the works being undertaken, the area of works and weather conditions. All necessary maintenance requirements shall be carried out by the Contractor to ensure the effectiveness of the control measures if the inspections show that this is required. A monitoring checklist is included in *A competent person must meet the requirements of regulation 41(3) of the Asbestos Regulations. An independent person, who must not be otherwise involved in the physical removal works, is required to undertake air monitoring and clearance inspections (where required). ** Asbestos PPE must be double bagged and top tied or tapped (turkey neck) for appropriate disposal. Table 4 below.
 Validation	<ul style="list-style-type: none"> Validation or works completion reporting is not specified under the OiC and is not expected to be required as part of the project. However, this could be prepared by the CLS on completion of the earthworks if required by HBRC (Regulatory) or for other reasons. The following information shall be collated by the Contractor: <ul style="list-style-type: none"> Copies of weigh bridge summaries confirming the disposal destination for soils removed from site. Details of any complaints relating to management of contaminated soil and how they were resolved. Details of any health and safety incidents relating to contaminated soils and how they were resolved. Validation samples collected by the CLS may be required during the works (e.g., following hotspot remediation). Should validation samples be collected, they shall be collected by a CLS and analysed by an IANZ accredited laboratory. The CLS shall carry out all soil sampling according to the requirements of the NESCS and the CLMG No.5.
Unexpected discovery procedure	
 Unexpected discoveries	<p>Unexpected discovery of contamination may include, but is not limited to, asbestos fragments, discoloured soil, odours and/or construction/demolition material.</p> <ol style="list-style-type: none"> 1 Stop work in the immediate vicinity of the discovery and isolate the area by taping, coning, or fencing off. 2 Advise Contractor's designated site manager, CLS, and HBRC. 3 Update the site Hazard Board and prevent access to the area by unnecessary personnel. 4 If asbestos is observed or suspected in a form or in an area not previously identified in the DSI (e.g. friable asbestos or > 10 m² ACM), cease site disturbance at that location and provide barriers to stop staff entering area. The contractor shall then contact the CLS and may need to engage a licensed asbestos removalist to facilitate the works. 5 If odours are present cover the material over with non-odorous soil or hay / straw and lime to prevent nuisance odour. 6 A site inspection shall be undertaken or overseen by the CLS who shall advise of specific controls. No materials shall be removed from the affected area until approval has been provided by the CLS.

The provisions of the contaminated site management plan are mandatory for all persons (employees, contractor and sub-contractors) who will be involved in undertaking ground disturbance works on the site.

Table 2: Low level asbestos contamination (AMA1 – applies to the building halo at the rear of 131 Taihape Road)

Scenario	AMA1: Low level asbestos contamination
	<u>>0.001% w/w AF+FA in soil >0.01 % w/w ACM</u>
Notification requirements	No additional notification required.
Oversight by a licensed removalist	Not required, so long as additional asbestos is not identified.
Personal protective equipment	Disposable coveralls rated type 5, category 3, nitrile gloves, steel toe capped gumboots or safety footwear with disposable overshoes.
Respiratory protective equipment	Disposable P2 dust mask (minimum).
Dust/asbestos fibre suppression	Water spray via localised points.
Air monitoring	Air monitoring not required. If further asbestos fragments are encountered, this should be adopted given the residential setting.
Cleaning facilities	Dedicated cleaning area and foot wash**
Vehicle and plant protection	Truck lining/soil wrapping depends on the receiving landfill. All trucks should be covered.
	Standard air conditioning for trucks and other plant.
Plant washing facilities	Visual assessment by a competent person* or SQEP following brush and or wash down.

Table 3: Trace asbestos contamination controls (applies to AMA2 – the stockpile of building debris behind 203 Ohiti Road)

Scenario	AMA2: Trace asbestos contamination
	<u>≤ 0.001% w/w AF+FA in soil < 0.01% w/w ACM</u>
Notification requirements	No additional notification required.
Oversight by a licensed removalist	Not required.
Personal protective equipment	No asbestos-specific PPE required as concentrations are unlikely to exceed trace levels in air.
Respiratory protective equipment	No asbestos-specific requirements as concentrations are unlikely to exceed trace levels in air.
Dust/asbestos fibre suppression	Water spray via localised points.
Air monitoring	Air monitoring not required. If further asbestos fragments are encountered, this should be adopted given the residential setting.
Cleaning facilities	Foot wash and used PPE collection area.
Vehicle and plant protection	Truck lining/soil wrapping depends on the receiving landfill and should be confirmed during the acceptance process. All trucks shall be covered.
	Standard air conditioning for trucks and other plant.
Plant washing facilities	Visual assessment by a Competent Person* or CLS following brush and or wash down (no high pressure wash) prior to leaving site.

*A competent person must meet the requirements of regulation 41(3) of the Asbestos Regulations. An independent person, who must not be otherwise involved in the physical removal works, is required to undertake air monitoring and clearance inspections (where required).

** Asbestos PPE must be double bagged and top tied or tapped (turkey neck) for appropriate disposal.

Contractor checklist for Ohiti Road stopbank works

Timing	Key task	Details	Completed/Comments
Prior to ground works commencing	Site set up	HBRC or delegate to advise Council of works commencing.	
		Appoint a contaminated land specialist (CLS): Name: Contact:	
		Establish earthworks (dust, erosion, sediment, stormwater, odour) controls as per CSMP Table 1.	
		Hazard board to state contaminated soil may be present and indicating health and safety requirements for workers.	
		Obtain PPE: disposable gloves, disposable coveralls and P2 dust masks.	
		Arrange disposal permits, if needed.	
During the works	General CSMP Compliance	Maintain earthworks (dust, erosion, sediment, stormwater, odour) controls as per CSMP Table 1.	
		Implement health and safety procedures	
		Retain all weighbridge and disposal dockets	
		Ensure imported material meets requirements in CSMP Table 1.	
		Implement water management procedures set out in Table 1 if required.	
	Alert HBRC and/or the Contractor's designated site appointed Project manager and CLS	If any of the following situations arise: Contaminated soil is encountered that includes: <ul style="list-style-type: none"> • Discolouration (green / blue / black staining most common). • Inclusions of non-cleanfill allowable deleterious materials (i.e. plastic, rubber, metal, refer Appendix F MfE Cleanfill Guidelines⁷). • If asbestos is observed or suspected in a form or in an area not previously identified (e.g. friable asbestos or > 10 m² ACM), Soil or groundwater with an oil sheen, odour or discolouration is encountered.	

⁷ MfE, January 2002. A Guide to the Management of Cleanfills.

