



CONTAMINATED SOIL MANAGEMENT PLAN

NZ Transport Agency Waka Kotahi
Mill Road Stage 1

AUGUST 2026

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QUALITY REVIEW AND APPROVAL RECORD

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1 INTRODUCTION

Beca Limited (**Beca**) has been engaged to prepare a Contaminated Soil Management Plan (**CSMP**) report for Mill Road Stage 1 (**the Project**), which is described in detail in the substantive application.

1.1 Objective and purpose

This CSMP is required for the construction phase of the Project. The objective of the CSMP is to, as far as practicable, manage potential effects arising from mobilisation of contaminants during construction of the Project.

The CSMP:

- a) Provides suitable controls for the handling of contaminated soils to be disturbed during development works.
- b) Provides procedures for sustainable management of contaminated soils that may be disturbed during development works, that promote onsite reuse and minimise landfill disposal.
- c) Provides controls to be implemented in the event of an accidental soil contamination discovery.
- d) Provides cross references to other project documents, including those which may be prepared by the contractor, that contain controls which are required due to the potential presence of contamination

This CSMP has been prepared in general accordance with the following guidelines:

- a) Ministry for the Environment (**MfE**) Contaminated Land Management Guidelines (**CLMG**) No. 1 – Reporting on Contaminated Sites in New Zealand (revised 2021).
- b) BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil (2024) (**GAMAS**).

1.2 Organisational roles and responsibilities

Table 1-1 details the contact details for those responsible for implementing and supporting this CSMP during the project. These contact details shall be updated prior to works commencing and regularly reviewed throughout the Project. Copies of all updates will be provided to Auckland Council.

Table 1-1 Roles and Responsibilities

Role	Responsibility
Consent holder: NZTA Project Manager: Email: Number:	Responsible for overseeing approval and implementation of this CSMP.
Construction Manager of the Lead Contractor: Contact Name: Email: Number:	- Responsible for ensuring the works comply with the requirements of this CSMP - Informs Auckland Council, as required, about contamination incidents and discoveries.

Role	Responsibility
Site Supervisor: Contact Name: Email: Number:	• Must read, understand, and implement the CSMP on site and manage site workers' compliance with the CSMP. • Will ensure all workers are inducted, wear appropriate personal protective equipment, and follow basic hygiene procedures and be aware of the symptoms of contamination toxicity and health risks. • Will monitor the works for signs of contamination (using an excavation spotter if necessary) and manage the implementation of control measures and safety precautions. • Will verbally report to the construction manager regarding incidents relating to presence of contamination.
Construction Stage Contaminated Land Specialist (SQEP): Contact Name: Email: Number:	• The Contaminated Land Specialist registered as a suitably qualified and experienced practitioner (SQEP) will be responsible for provision of contaminated land advice during the works and completion reporting on conclusion of the works, if required. • In the event of an accidental soil contamination discovery, the SQEP may specify additional mitigation procedures. One such additional requirement may be alternative PPE requirements, which are to be adopted as directed (these may include, but not be limited, to items such as coveralls and half face respirators).

2 DETAILED SITE INVESTIGATION SUMMARY

Beca was engaged to undertake a Detailed Site Investigation (**DSI**) of Stage 1 of the Mill Road Corridor (**the Project**). On the basis of the soil sampling results from this DSI, soils onsite have been divided into four categories for management as set out in Section 3 below.

3 SOIL CATEGORISATION

Soil within the Project has been placed into four categories which inform the scale and type of management and/or reuse that is needed for those soils, where they are to be disturbed during development works. Table 3-1 defines these four categories. This framework supports the sustainable reuse of soil onsite, while managing the risks from soil contamination to end land users and the receiving environment.

These soil categories must be used by the construction stage SQEP when undertaking further assessment or testing of soil at the site to promote sustainable onsite reuse of soils where possible.

Appendix A shows the initial soil categorisation of the site.

Table 3-1: Soil Categorisation Definitions

Classification	Definition	Onsite Use	Off-site Disposal
Cleanfill	Soil which contains trace element concentrations less than the background concentration in Auckland soils ¹ and the AUP definition of cleanfill material.	Reuse across the Project without restriction	Cleanfill

Classification	Definition	Onsite Use	Off-site Disposal
Unrestricted Use	Soil which contains contaminant concentrations above the soil background concentrations ¹ , but complies with the NESCS residential 10% ² and AUP environmental criteria ³ , or other criteria suitable for a residential land use assessed as applicable by the SQEP using the CLMG No.2 hierarchy ⁴ .	Reuse across the project without restriction.	Managed Fill and /or Landfill – Subject to SQEP decisions and receiving facility acceptance criteria.
Controlled Use	Soil which contains contaminant concentrations above the soil background concentrations ¹ and the NESCS residential 10% ² , but complies with NESCS commercial/industrial ⁵ , and AUP environmental criteria ³ , or other criteria for a commercial/industrial/ recreation land use assessed as applicable by the SQEP using the CLMG No.2 hierarchy ⁴ .	Reuse of soil limited to parks, road verges, landscaping, below roads or other non-residential land uses. Not permitted for reuse within residential properties	Managed Fill and /or Landfill – Subject to SQEP decisions and receiving facility acceptance criteria.
Restricted Use	Soil which contains contaminant concentrations above the soil background concentrations ¹ , and the NESCS commercial/industrial ⁵ , and/or AUP environmental criteria ³ , or other criteria for a commercial/industrial/recreation land use assessed as applicable by the SQEP using the CLMG No.2 hierarchy ⁴ .	Requires specific onsite management or containment designed to provide a suitable level of protection to human health and the environment. This could include an onsite encapsulation cell, or managing soil with low levels of asbestos under the road construction profile.	Landfill disposal

1. Auckland Unitary Plan – Chapter E30, Table E30.6.1.4.2 Background ranges of trace elements in Auckland soils sources from Table 3 of TP153:2001 Background Concentrations of Inorganic Elements in Soils from the Auckland Region.
2. National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health – Soil contaminant standard for a residential land use with 10% homegrown produce consumption.
3. Auckland Unitary Plan – Chapter E30, Chapter E30, Table E30.6.1.4.1 Permitted activity soil acceptance criteria.
4. Ministry for the Environment - Contaminated Land Management Guidelines (CLMG) No. 2 - Hierarchy and Application in New Zealand of Environmental Guideline Values (Revised 2011).
5. National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health – Soil contaminant standard for commercial / industrial workers (outdoor unpaved).

4 SOIL MANAGEMENT

The characterisation of soil will inform how it is to be managed during the Project. Soil shall be managed based on the following processes.

4.1 Characterised soil

4.1.1 Cleanfill

Soil which is characterised as **Cleanfill** may be handled without restriction and repurposed onsite as cleanfill or disposed of off-site as cleanfill.

The construction stage SQEP shall confirm whether soil to be disturbed meets the cleanfill definition outlined in Table 3-1. Where no Hazardous Activities and Industries List (**HAIL**) site has been identified and no soil testing has occurred, the Project Team can assume these soils can be managed as 'unrestricted use' soil. Should cleanfill disposal off-site be required, then the construction stage SQEP will need to be satisfied that sufficient testing has been undertaken to allow for disposal to either an appropriate facility or alternative accepting site.

4.1.2 Unrestricted use

Unrestricted Use soil may be repurposed within the site as required, without restriction. This soil has been assessed as posing low to negligible risk to end land users or the receiving environment and may be used in situations where sensitive end land uses are proposed. This soil may be used within:

- Residential properties
- Residential gardens
- Parks
- Landscaping features

Unrestricted Use soil may not meet the **Cleanfill** definition, and there may not be disposed off-site as such with the Auckland Region under the Auckland Unitary Plan. It is anticipated that **Unrestricted Use** soil removed from site may require disposal at a managed fill or landfill consented to take soil of this quality. Where no HAIL site has been identified and no soil testing has occurred, the Project Team can assume these soils can be managed as 'unrestricted use' soil while also taking into account unexpected discovery protocols.

4.1.3 Controlled use

Controlled Use soil may be repurposed within the site, with some restriction. This soil is assessed as unsuitable to be reused within a residential context, while posing low to negligible risk to commercial/industrial land users or the receiving environment. This soil may be used within:

- Parks
- Landscaping features
- Road corridor
- Rural non-residential areas not used for horticulture or grazing

Where **Controlled Use** soil is present within an earthworks area, this area is to be isolated prior to bulk works commencing to prevent the soil from being accidentally reused or disposed of in a way that is not permitted by this CSMP. Isolation of this soil may be achieved by:

- Fencing/marketing off the area to prevent machinery access.
- Removing the soil from the work area and storing it in a stabling area for future reuse.

Controlled Use soil are unlikely to meet the **Cleanfill** definition and therefore may not be disposed off-site. **Controlled Use** soil removed from site will require disposal at a managed fill or landfill consented to take soil of this quality.

4.1.4 Restricted use

Restricted Use soil is characterised as posing a risk to commercial/industrial workers and/or the receiving environment. **Restricted Use** soil cannot be disturbed or repurposed with location-specific controls in place to manage this risk. These controls will be guided by the SQEP, who will prepare a location-specific addendum to this CSMP which reflects final development plans. A copy of the addendum will be provided

to Auckland Council prior to the soil disturbance being carried out. The location-specific addendum will detail:

- How soil in this location will be handled
- Any onsite encapsulation of Restricted Use soil, or other management practices
- Any soil validation requirements if **Restricted Use** soil is to be removed from its location

Restricted Use soil may be consolidated in one location within the site. If this is to be undertaken, the SQEP shall prepare long-term management controls for this location, which may include input from other disciplines required to design containment cells, or other management features. This information shall be supplied to Auckland Council as an addendum as outlined above.

The location-specific addendums and any variations of the CSMP to manage **Restricted Use** soil shall be submitted to Auckland Council for certification if required to satisfy any consent condition requirements.

Restricted Use soil will require disposal at a managed fill or landfill consented to take soil of this quality if removed from site.

4.1.5 Uncharacterised soils

Where soil quality is uncharacterised, these soils can generally be considered to be unrestricted soils, given the absence of identified HAIL activities and the significant volume of soil samples in similar areas showing the majority of soils to be of unrestricted quality. The Construction Stage SQEP shall use their judgement to inform whether further soil sampling is required. It is anticipated further sampling will be required in the following locations if they are to be considered as unrestricted:

- Where uncharacterised soil requires disturbance on residential properties marked as inaccessible on Appendix A, and/or if soil is to be disturbed on residential lots that is more than 5m from the property boundary or within 1m of a dwelling or structure on a property that has not been previously tested. This is to account for the risk from residential properties not sampled but takes into consideration that taking a thin slice of residential section beside the road verge and not next to buildings has been shown by the testing to not represent an elevated risk beyond that of the verge.
- Where site observations show indications of soil contamination (see Section 6).

4.2 Areas requiring site specific management approach

Three areas have been identified as requiring a site-specific management approach:

- Eastern corner of Hilltop and Redoubt Road, limited to the southernmost extent of Hilltop Road. into the eastern side
- 1345 Alfriston Road
- 38 Mill Road

4.2.1 Corner of Hilltop and Redoubt Road

Identified location of landfill material, containing contaminant concentrations which could pose a risk to site workers and/or the receiving environment. Contaminants are known to include heavy metals and asbestos, given the uncontrolled nature of the filling a range of other contaminants could be present. The depth and volume of fill material is not fully understood, and further investigation is required to refine the approach for managing this location as part of final project design.

Further investigation shall:

- Delineate the extent of fill material at this location (where disturbance is required) and determine the quality of emplaced material.
- Have erosion and sediment controls to manage environmental discharges from soil disturbance during investigations.
- These controls are important to manage potential discharges into the surface waterways located at the base of the gully.

- These controls are to be informed by the Erosion and Sediment Control specialist engaged during construction.

Following investigation, the Construction Stage SQEP shall prepare a methodology detailing how this material will be managed and handled to facilitate construction, which may include:

- Encapsulating material in-situ
- Removing to landfill or dedicated location/management cell elsewhere in development
- Combination of both.

This methodology shall be submitted to Auckland Council as an update to this CSMP.

4.2.2 1345 Alfriston Road

Identified location of a small contractors' yard, former orchard, and potential fill material containing contaminant concentrations which could pose a risk to the receiving environment and site workers. Further assessment of this location to be undertaken to delineate areas of identified exceedances to economise soil handling requirements and reduce the risk of accidental soil contamination discovery in areas where localised fill material has been placed.

Following investigation, the Construction Stage SQEP shall prepare a methodology detailing any further handling and disposal requirements in this location based on final design and construction requirements. This methodology shall be submitted to Auckland Council as an update to this CSMP.

4.2.3 38 Mill Road

Location of emplaced fill material containing asbestos, which was placed under a resource consent by Watercare, has anecdotally been removed. DSI sampling did not identify the presence of residual asbestos impacted fill; however further sampling should be completed upon finalisation of design plans to confirm this if confirmation of its removal and the final site state cannot be obtained.

If formal approval of the stockpile's removal cannot be confirmed, the Construction Stage SQEP shall undertake sampling based on the soil disturbance requirements of final design plans. Where further sampling identifies the presence of asbestos impacted soils, the Construction Stage SQEP shall prepare a methodology detailing how this material will be managed and handled to facilitate construction, which may include:

- Encapsulating material in-situ
- Removing to landfill or dedicated location/management cell elsewhere in development
- Combination of both.

This methodology shall be submitted to Auckland Council as an update to this CSMP.

4.3 Residential properties

The DSI identified that soil within residential yard areas may be considered as **Unrestricted Use** soil, unless specifically characterised as otherwise. However, the presence of structures and continued residential occupation of properties may change this assessment on a case-by-case basis including as part of demolition surveys or observations.

See Section 4.1.5 for considerations to be given to soils in areas not tested.

4.3.1 Residential structure considerations

Structures represent a potential source of soil contamination, which may only be realised during removal or demolition of these structures. It is generally accepted that when structures are removed or demolished in a controlled manner, the soil contamination risks are contained to a 1 m 'halo' surrounding structures. To manage the soil contamination risks from residential structures:

- Any structure to be removed shall have an asbestos demolition survey completed by a licenced asbestos assessor to identify the presence of asbestos containing materials as per the requirements of the Health and Safety at Work (Asbestos) Regulations.

- Where asbestos is identified as present, this shall be removed by a licenced asbestos removalist prior to any demolition being undertaken and an asbestos clearance certificate provided.
- Following removal of structures (i.e. dwellings or sheds), a 1 m wide 'halo' shall be removed from the footprint of the former structure to a depth of 0.3m and disposed of as demolition mullock.
 - This approach is consistent with other large-scale redevelopment projects where removal of multiple residential structures is undertaken.
- The location of former structures shall be visually inspected by the construction stage SQEP for evidence of soil contamination which may have been previously obscured (i.e. asbestos cement fragments, refuse).
 - Where evidence of potential soil contamination is identified, this shall be investigated based on the recommendations of the construction stage SQEP understanding.

Further sampling may be undertaken by the Construction Stage SQEP to further assess the risk from 'halo' soils, and they may then elect to categorise this soil under the categorisation framework in Table 3-1.

4.4 Coal tar

Coal tar was a byproduct of the coal gasification process. Coal tar has historically been used as part of road construction in New Zealand, primarily as binder in subbase materials. Its use is reported up until the 1980s, however its use reduced significantly by the 1970s as a result of the closure of the majority of gasworks. Coal tar contains high concentrations of polycyclic aromatic hydrocarbons (**PAH**), which are identified as having the potential to pose a risk to human health.

No former investigations have confirmed the presence of coal tar within the site corridor or surrounding area.

However, it is recommended that the Construction Stage SQEP undertake assessment to inform handling and management controls from roading materials at the site when safe access to paved areas of the road corridor is possible. This investigation shall be guided by the WasteMinz Guidelines for Assessing and Managing Coal Tar Contamination in Roothing (December 2023).

If coal tar is identified within the site, the Construction Stage SQEP shall update this CSMP, with the controls and procedures for the handling and management of coal tar, and any contaminated soils.

4.5 Statistical analysis

Additional soil sampling completed by the Construction Stage SQEP may identify isolated exceedances of applied human health and environmental criteria. Where exceedances are identified that are less than double the criteria applied, and are contained within a representative population data set, the Construction Stage SQEP may elect to undertake a statistical analysis of the soil to determine final characterisation.

Where the 95% Upper Confidence Limit (**UCL**) of a statistical assessment complies with the applied criteria, the construction stage SQEP may characterise the affected soil within the relevant population as per the categorisation framework outlined in Section 3.

5 CONTAMINATED SOIL CONTROLS

The following controls are to be implemented for all soils classified as **Controlled Use** or **Restricted Use** as per **Appendix A** (unless a site-specific containment plan has been undertaken that supersedes these provisions). The controls should be maintained until such time soil disturbance activities are completed and soil placed into an erosion resistant state.

5.1 Pre-development site set-up

A site meeting shall be held and attended by NZ Transport Agency Waka Kotahi (**NZTA**), the Contractor, and any other personnel involved with the earthworks (e.g. sub-contractors) to discuss the risk of

potentially contaminated soils and to agree on site procedures for handling potentially contaminated soils in line with this CSMP.

Prior to soil disturbance works commencing, the Contractor shall establish controls including, but not limited to:

- Access to the earthworks areas shall be restricted to authorised personnel. This shall be achieved via security fencing and be maintained as secure at all times. Access to these areas will be granted/allowed following appropriate site induction procedures.
- Signage detailing site works information, health and safety requirements, and site reporting requirements shall be in place.
- Health and safety facilities including first aid points.
- Dust control systems.
- Stormwater (surface runoff) diversion and collection systems.

Procedures relating to the management of dust, stormwater, sediment and stockpiling are detailed in the sections below and shall be implemented by the Contractor. All procedures shall comply with the relevant Council bylaws and conditions of any applicable resource consents.

Landfill acceptance of any excavated materials to be disposed off-site shall be obtained prior to works commencing. Section 5.7 outlines off-site disposal procedures in detail.

5.2 Health and safety

This CSMP focuses specifically on the handling and management of potentially contaminated soil, setting out the specific known health and safety hazards in relation to contaminated soil.

The CSMP will be implemented in tandem with health and safety measures required by the Contractor, in consultation with the SQEP, and may include:

- a) Training;
- b) Induction and daily site meetings;
- c) Use of appropriate personal protective equipment (**PPE**);
- d) Encouraging good personal hygiene practices; and
- e) Provisions of first aid supplies.

The contractor will be required to manage all hazards, including those identified in this document, and as may be identified through the Project.

5.3 Stormwater management and erosion and sediment control

Erosion and sediment controls, as appropriate to the works, shall be installed by the Contractor prior to earthworks/excavations commencing in accordance with the Erosion Sediment Control Plan (**ESCP**).

Where sediment is retained (in line with the ESCP controls) in an identified contaminated area then the sediment captured through these controls should be treated the same as soil in that area i.e. in line with the procedures in this CSMP.

5.4 Dust control procedures

The importance of adherence to good practice for dust controls becomes heightened in areas where soil contamination maybe present. Dust controls shall be implemented by the Contractor, in accordance with the Dust and Odour Management Plan.

5.5 Vapour and ground gas management

Vapour and ground gas generation are considered to be a low to negligible risk based on the former investigation findings. However, due scale of the development, there remains a risk of uncharacterised

contamination onsite, and therefore vapour and ground gas generation during development works cannot be fully excluded.

The site contractor shall have controls in place to manage potential vapour/gas risks within excavations to manage worker safety. These controls should include regular atmospheric testing for:

- Safe oxygen levels;
- Toxic contaminants (i.e., hydrogen sulphide or solvents); and
- Flammable gases (methane).

Refer to the WorkSafe New Zealand 2025 Workplace exposure standards and biological exposure indices for short-term exposure limits (**STEL**) and time-weighted average (**TWA**) limits. In the event vapours or odour generating material is encountered during excavations, the site contractor shall stop works and defer to the unexpected contamination discovery protocols in Section 6.

The site contractor may defer to the SQEP for further guidance on vapour and ground gas risk management.

If following soil sampling investigation vapour or ground gas is deemed a higher risk than outlined above, this section shall be updated to reflect the identified risk.

5.6 Groundwater management procedures

Where groundwater is encountered during the excavation works, the Contractor shall:

- Contain groundwater within the excavation and not allow it to discharge across the site surface.
- If dewatering is required, the pumped groundwater discharge shall be diverted into onsite retention. The groundwater may be disposed to stormwater only if laboratory testing of water indicates it is appropriate to do so and this has been agreed with the Council (or separate resource consents obtained if required). Sampling must be undertaken under the guidance of a SQEP.
- If laboratory analysis identifies contaminants above limits for discharge to stormwater, groundwater may be discharged to reticulated wastewater system subject to approval from Watercare.
- The SQEP shall determine the appropriate analyte suite to inform disposal based on the contaminants of concern identified by the PSI and nearest soil sampling data.

5.7 Soil excavation/disturbance procedures

For soils excavated as part of the development, the Contractor shall ensure that records are kept of all excavations and soil movements on-site. These shall include the location and dimensions of the excavation, the ground conditions, the soil movement on site, and whether any waste materials, unusual staining, and/or odour were observed.

If waste materials, unusual staining, odour, or other potential indicators of soil contamination are encountered during excavations, the contractor shall refer to the unexpected contamination discovery protocols detailed in Section 6 below and contact the SQEP for next steps.

5.7.1 Stockpile procedure

Where stockpiles are required, they shall be maintained at no more than 3 m in height. Stockpiles shall not be placed in an area where runoff cannot be controlled. Stockpiles shall be managed by the Contractor as follows:

- Where adverse weather is forecast (including windy conditions), the stockpiled material shall be covered by a suitable material (such as polythene) to:
 - Prevent the ingress of rainwater into the material and therefore minimise the potential for generation of leachate or sediment in stormwater.
 - Prevent wind-blown distribution of soils or dust.
- If the covering of stockpiles is not feasible or practical, these should instead be tamped down to stabilise to stockpile surface and surrounded by erosion and sediment controls (i.e. silt fencing, filter socks, or similar) to minimise the generation of sediment laden stormwater.

5.7.2 Off-site disposal

If soil is to be removed from site during the development, this shall be disposed of at a receiving facility that holds the necessary consents and permits to receive soil of the quality characterised. Table 3-1 provides guidance on off-site soil disposal requirements for respective categories, however off-site soil disposal shall be guided by the SQEP, and commercial arrangements of the Lead Contractor.

The following process is to be followed for off-site soil disposal:

- Confirmation and approval from an appropriately consented receiving facility should be obtained by the Contractor prior to material leaving the site.
- The Contractor must retain copies of all disposal receipts/documentation and provide these to the Project Manager within five working days of receipt.
- Materials requiring excavation for disposal to a licensed Class 1/A landfill (i.e. Restricted Soils) shall be excavated and loaded directly into truck and/or trailer units where possible (limiting stockpiling), subject to acceptance by the receiving facility.
- All trucks containing Restricted Soils shall be covered before leaving site, to safely contain all materials during transport.
- The Contractor shall maintain a register of soil movements and records such as location of excavation, disposal location, quantity of material and off-site weighbridge documents.

5.7.3 Imported materials

Any material imported to site for the purposes of filling shall be cleanfill, unless otherwise approved by Council in accordance with the protocols of this CSMP. Records must be provided by the Contractor to demonstrate that any imported material is obtained from a quarry or other appropriate source.

Material shall not be imported from any site that is, or would be considered, a HAIL site (MfE, 2021), unless sampled under the guidance of a SQEP who shall determine it is suitable for the intended land use and is acceptable to NZTA.

6 ACCIDENTAL SOIL CONTAMINATION DISCOVERY

The procedures outlined below provide the protocols to identify potential contamination if suspected contaminated soils or hazardous materials are discovered during development works for the Project.

These protocols will enable the appropriate action to avoid exposure of contaminants to site workers or the dispersion of contaminants into the surrounding environment during investigations.

In the event of an accidental soil contamination discovery, the Construction Stage SQEP should be contacted to assess the contamination risk, controls required, and potential impacts on the development.

6.1 Soil contamination indicators

Soil contamination indicators or hazardous materials may include, but are not limited, to the following:

- Unusual odours.
- Discoloured or stained water seeps and soils.
- Petroleum hydrocarbon contaminated soil and/or free product including sheens.
- Liquid waste, putrescible waste, household refuse, building rubble, and any material that normally would be sent to a licensed landfill.
- Suspected Asbestos Containing Material (**ACM**) such as lagging or fibre cement sheeting.
- Intact or broken drums and containers.
- Fill material atypical of surrounding geology.

Examples of potential accidental soil contamination discoveries are provided in Table 6-1 below. These examples are a guide only, and not an exhaustive list of potential soil contamination discoveries.

6.2 Accidental contamination discovery protocols

Site workers and managers shall actively monitor for the conditions/materials specified above. In the event that one of these is identified, the Contractor should follow the AUP E12.6.1 Accidental discovery rule summarised below:

- Cease all works within 20 m of the area where the suspected material/emission/discharge has been recorded.
- Immediately notify the site supervisor.
- Cordon off the area as practicable with a suitable barrier.
- Work shall not resume within 20 m of the area unless authorised by a SQEP.

The site supervisor shall contact the Construction Stage SQEP who will advise on the appropriate course of action. The SQEP shall:

- Notify Auckland Council that contamination has been discovered and contingency action is being implemented (if required).
- Characterise the contamination by collecting samples for chemical laboratory analysis.
- If appropriate, advise the site workers to excavate the suspected contaminated material and stockpile or place in a covered container to allow works to continue with minimum delay.
- If stockpiling/containerising is inappropriate, advise investigation work to proceed to an area clear of contamination indicators until material testing, as necessary, defines the material characteristics.
- If the accidental discovery is located on private property, and this cannot be isolated or restricted, this location shall be covered to minimise interaction with affected soils, and site occupiers notified via the communications team (subject to NZTA approval).
- When the material characteristics have been established, advise the site/investigation supervisor as to whether the materials may remain on site or what remedial or management measures are required to manage soil contamination risks.
- Inform any additional PPE requirements for advancing intrusive investigations within the affected area.
- Instruct relevant staff so that all appropriate information such as location and quantity of material any off-site disposal is recorded (i.e. weighbridge dockets).

Table 6-1: Accidental Soil Contamination Discovery Examples

Accidental Soil Contamination Discovery Example	Description
	Burn Pit/Pile Risks from Heavy Metals, Asbestos, Hydrocarbons

Accidental Soil Contamination Discovery Example	Description
	Buried Fill Material Risks from Heavy Metals, Asbestos, Hydrocarbons, Organochlorine Pesticides
	Asbestos Containing Materials Risks from Asbestos Fibres
	Hydrocarbon Impacted Soil Risks from Hydrocarbons, Vapour Generation (Asphyxiation/Explosion Risk)

Accidental Soil Contamination Discovery Example	Description
	Underground Storage Tanks Risks from Hydrocarbons, Vapour Generation (Asphyxiation/Explosion Risk)

7 CONTAMINATED SOILS CLOSURE REPORTING

Following completion of soil disturbance activity onsite for each stage of the construction process, the site contractor (or nominated construction stage SQEP) shall prepare a Contaminated Soils Closure Report (**CSCR**) summarising the works completed. The CSCR will include, but not be limited to:

- a) Summary of earthworks completed.
- b) Records of any soil removed from site, or imported to site such as:
 - i) Volume of soil exported and imported from the site;
 - ii) Location of disposal facility(ies); and
 - iii) Disposal facility records (i.e. tip dockets).
- c) Laboratory results for imported material, and results of any additional soil sampling or laboratory analysis undertaken.
- d) Details of any onsite management of Controlled or Restricted Soils, including:
 - i) Location of retained soil contamination;
 - ii) Long-term contaminated soil management plans; and
 - iii) On-going monitoring requirements (if any).
- e) Any accidental soil contamination discoveries.
- f) Condition of the final site ground surface.
- g) Any complaints, incidents, or other.

The CSCR is to be provided to NZTA, who will submit the CSCR to Auckland Council.

8 DISCLAIMERS

This CSMP has not been prepared to facilitate onsite encapsulation or long-term management of contaminated soils classed as 'restricted'. If encapsulation or long-term management of contaminated soils is to be undertaken, this CSMP shall be revised or a location-specific amendment of this CSMP

prepared by the construction stage SQEP detailing the encapsulation and/or long-term management methodology and requirements.

The CSMP is intended to assist the site Contractor in meeting their legal obligations related to potentially contaminated soils with respect to human health and the environment. It is not intended to cover the general site safety procedures required for excavation and construction activities at the site. The CSMP is not intended to relieve the Contractor of their legal responsibilities.

Overall responsibility for the implementation of this CSMP shall be held by NZTA. However, the specific requirements and provisions of the management plan will be under the control of the site Contractor (if not NZTA). The CSMP requires the involvement of a Suitably Qualified and Experienced [Contaminated Land] Practitioner (**SQEP**) for the purposes of refining any of the CSMP provisions to facilitate design refinements, temporary works provisions, or contamination discovery during construction works (referred to in this CSMP as “construction stage SQEP”).

APPENDIX A SOIL CATEGORISATION