

Environmental Health Referral Response - contaminated lands

Application Number:	DA2022/0456
Date:	29/06/2022
Responsible Officer	Adam Susko
Land to be developed (Address):	Lot 4 DP 737411 , 62 Myoora Road TERREY HILLS NSW 2084

Reasons for referral

This application requires detailed consideration of Phase 1 and 2 contaminated land matters
And as such, Council's Environmental Investigations officers are required to consider the likely impacts.

Officer comments General Comments

Applicant has provided the following contaminated land reports:

- Preliminary (Stage 1) Site Investigation by JK Environments dated 28 October 2021 (reference: E34278PHrpt)
- Detailed (Stage 2) Site Investigation by JK Environments dated 25 January 2022 (reference: E34278PHrpt2)
- Remedial Action Plan by JK Environments dated 6 April 2022 (reference: E34278PHrpt3-RAP)

The Detailed (Stage 2) Site Investigation found/concluded the following:

Fill was encountered at the surface or beneath the pavement in all boreholes, except BH113 and BH116, and extended to depths of approximately 0.2m to 4.5m. The fill typically comprised silty gravelly sand/gravelly silty sand, silty sand and silty clayey sand/silty sandy clay with inclusions of igneous and ironstone gravel, ash, slag and building rubble (brick, concrete, AC, glass and tile fragments). During the PSI, fill was also found to contain organic material.

And,

All of the soil analysis results were less than the Site Assessment Criteria (SAC), with the exception of asbestos. We note that asbestos was detected at concentrations that exceeded the SAC in fill samples from BH101 and BH128. Asbestos was also detected at concentrations less than the SAC in fill samples from BH104, BH106, BH110 and TP127. The source of the asbestos is considered likely to be the demolition material that was observed throughout the fill.

Methane and carbon dioxide were encountered both during drilling of BH101 and spot monitoring in MW101. We note that MW101 is located in the north-east corner of the site, outside of the proposed building/basement footprint. The methane and carbon dioxide are considered likely to be associated with organic material in fill.

The Detailed (Stage 2) Site Investigation recommended the following:

JKE consider the site can be made suitable for the proposed development via remediation. The following is recommended:

- A Remediation Action Plan (RAP) should be prepared to outline measures to reduce the risks associated with the asbestos in fill at the site. The RAP must also outline the details of additional HGG monitoring at the site and other site management protocols to address the data gaps;
- An Asbestos Management Plan (AMP) is to be prepared for the construction phase of the proposed development for the removal of the asbestos waste, as required under the NSW Work Health and Safety Regulation 2017; and
- An AMP is to be prepared for management of asbestos in soil whilst the existing retail premises continue to operate.

The Detailed (Stage 2) Site Investigation advises the following regarding the asbestos contamination:

The source of the asbestos is considered likely to be the demolition material that was observed throughout the fill. The asbestos impact would be limited vertically to the depth of fill and appears to extend horizontally across the entire site. The asbestos was primarily in the form of AF/FA, is considered to be friable and represents a greater risk to human receptors compared to the ACM.

There was no visible asbestos at the ground surface and only limited samples containing asbestos were from at or near the surface. On this basis, there is considered to be a low risk of a complete SPR-linkage at present in the current site configuration and risks from asbestos are likely to remain low whilst the fill remains undisturbed. The risk of exposure to asbestos could increase during excavation/disturbance of the fill if such activities are not managed appropriately.

The RAP assumes that all fill across the entire site is impacted by asbestos. Given the presence of fill material and asbestos that includes friable asbestos, proper management of the contamination will be required. The preferred option for asbestos remediation within the RAP is for the in-situ capping of the contamination with long term ongoing management combined with the excavation and off-site disposal for any areas where excavation of fill will be required.

The RAP states that a Long-Term Environmental Management Plan (LTEMP) will be required for the ongoing management of the encapsulated asbestos.

Environmental Health have no objection to the proposed remediation method for the asbestos. A number of conditions of consent will need to be imposed on the development including a positive covenant for the encapsulated asbestos and the preparation and implementation of a Long-Term Environmental Management Plan.

The RAP however, identifies the following data gaps that will need to be addressed:

- The HGG assessment was limited to field screening during drilling and a single monitoring event from two HGG wells. Additional monitoring and risk analysis was considered necessary to meet guideline requirements. Recommendations for additional HGG assessment are included in the report to address this data gap; and
- The source of the TRH (F2) detected in MW101 groundwater samples has not been confirmed and JKE recommended that this would need to be managed via the implementation of appropriate procedures during and following demolition.

Given that the data gap includes uncertainty around Hazardous Ground Gas (HGG) and the development includes a basement level carpark, Environmental Health considers that it is important that these data gaps be addressed first prior to Council issuing consent.

As such, Environmental Health does not support the application at this stage. To support the application Environmental Health recommends that a data gap analysis investigation be undertaken prior to issuing consent. The investigation and report are to address the data gaps identified within Remedial Action

Plan by JK Environments dated 6 April 2022 (reference: E34278PHrpt3-RAP).

The investigation is to be in accordance with relevant industry guidelines including State Environmental Planning Policy (Resilience and Hazards) 2021 and NSW EPA guidelines including NSW EPA Assessment and management of hazardous ground gases Contaminated Land Guidelines 2020. The report is to be prepared by, or reviewed and approved, by a certified consultant as defined under NSW EPA Contaminated Land Consultant Certification Policy.

Recommendation

Not Supported - Further Information Required

The proposal is therefore unsupported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Environmental Investigations Conditions:

Nil.