

Environmental Health Referral Response - contaminated lands

Application Number:	DA2021/0139
Date:	16/03/2021
Responsible Officer	Alex Keller
Land to be developed (Address):	Lot 100 DP 817162 , 2 Cross Street BROOKVALE NSW 2100

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

A Preliminary Environmental Site Assessment has been prepared by Environmental Investigation Services. This report covered the site and the immediately adjoining properties at 13 and 15 Green Street. This report identified that potential contamination would be anticipated to be associated with the following:

- Potentially contaminated imported fill material;
- Potential asbestos material associated with the demolition of existing structures;
- Potentially two (2) underground storage tanks (USTs);
- Historical use of the site for commercial/ industrial purposes; and
- Historical activities such as the use of pesticides.

This investigation found that no elevated concentrations or contaminants were found in soil or groundwater samples. However, the pH of the groundwater was found to be outside the acceptable range and traces of hydrocarbons below the GILs were detected that indicate a potential localised contamination issue. Asbestos was also detected in a fill sample that was collected from one of the boreholes that was drilled on-site.

Based on the findings of the investigations conducted as part of the Preliminary Environmental Site Assessment, it was concluded the contamination encountered may pose a risk to human health and the environment. Subsequently, it was recommended that a Stage 2 environmental site assessment be undertaken, noting a gap in the data in relation to potential contamination associated with the suspected USTs.

An Additional Site Environmental Assessment was prepared by Environmental Investigation Services in accordance with the conclusions of the Preliminary Environmental Site Assessment and accompanies this application. A ground penetrating radar (GPR) scan and site inspections were undertaken to identify the USTs. This scan identified that a UST was located in the north-west corner of the site underneath the driveway. Separate cuts in the concrete were located that suggest the UST was decommissioned and removed. The other UST was suspected to be the northern part of the site being 13-15 Green Street, Brookvale. Environmental Investigation Services did not find any obvious indication of a UST in this location. However, the potential for a UST to be located in this section of the site was still required to be considered.

Further asbestos was detected within the Fill samples analysed as part of the Additional Site Investigation Assessment. An elevated concentration of PAH Anthracene was also encountered in one of the borehole samples. However, the potential for significant widespread groundwater contamination was found to be low. Given the asbestos encountered it was concluded that it may pose a risk to human health if disturbed.

Environmental Investigation Services concludes that the site can be made suitable for the proposed development provided that the following recommendations are implemented to minimise these potential risks:

- The preparation of a friable Asbestos Management Plan;
- The undertaking of a Hazardous Materials Assessment; and
- The undertaking of inspections during demolition phase to assess any unexpected conditions or facilities.

The preparation of this reports and the undertaking of inspections can be imposed as a condition of consent.

Environmental Investigation Services in their 2nd report Feb 2013(supplementary to their preliminary site assessment report November 2012) conclude that the following recommendations are implemented to minimise these risks:

An Acid Sulfate Soil Management Plan should be prepared for the proposed excavation. Additional intrusive works and soil testing may be required at deeper soil profiles to determine appropriate liming rates;

A friable Asbestos Management Plan should be prepared for the proposed development to document the removal of asbestos contaminated fill material and address Work Health and Safety issues during site works;

A Remediation Action Plan (RAP) should be prepared for the removal of the UST. The RAP should include a contingency plan that can be implemented if any additional USTs or unexpected sub-surface structures are encountered;

A Hazardous Materials Assessment (Hazmat) should be undertaken for the existing buildings prior to the commencement of demolition works; and

Inspections during demolition and excavation works should be undertaken to assess any unexpected conditions or subsurface facilities that may be discovered between investigation locations. This should facilitate appropriate adjustment of the works programme and schedule in relation to the changed site conditions. Inspections should be undertaken by experienced environmental personnel.

Note EIS comment : An inspection found evidence that the UST potentially located on the site has been removed. Therefore, the preparation of a RAP for the proposed development is considered unnecessary, although Council could impose a condition also requiring the preparation of such if a UST was to be located.

It is our opinion that issues raised can be dealt with by way of conditions to avoid pollution related concerns.

Recommendation

APPROVAL - subject to conditions

The proposal is therefore supported.

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

Recommended Environmental Investigations Conditions:

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

Prior to issue of a Construction Certificate or demolishing and excavation

Prior to the issue of a Construction Certificate the following plans are to be prepared by suitably qualified persons and submitted to the certifier for approval:

1. An Acid Sulfate Soil Management Plan be prepared for the proposed excavation. Additional intrusive works and soil testing may be required at deeper soil profiles to determine appropriate liming rates;
2. A friable Asbestos Management Plan be prepared for the proposed development to document the removal of asbestos contaminated fill material and address Work Health and Safety issues during site works;
3. A Remediation Action Plan (RAP) be prepared for the removal of any UST. The RAP should include a contingency plan that can be implemented if any additional USTs or unexpected sub-surface structures are encountered;
4. A Hazardous Materials Assessment (Hazmat) be undertaken for the existing buildings

N.B. Plans are to be in accordance with the report by Environmental Investigation Services in their 2nd report Feb 2013 (supplementary to their preliminary site assessment report - November 2012)

Reason: To ensure environmental safeguards are in place before any work commences on site.

Demolishing; excavation and construction Noise

Adjoining neighboring affected property occupiers are to be notified at least 7 days in advance before the commencement of works so alternative arrangements can be made to minimise disturbance to normal business operations. The builder is to make a contact phone number available to neighbors to manage any complaints and to keep a register of complaints received and their resolutions.

Reason: To minimise disturbance to neighboring businesses during critical noise events.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Requirement to Notify about New Contamination Evidence

Any new information revealed during demolition or excavation works that has the potential to alter previous conclusions about site contamination or hazardous materials shall be immediately notified to the Council and the Principal Certifying Authority.

Reason: To protect human health and the environment.

Dust Control

Dust control measures including best practice, and in accordance with NSW Workplace Health and Safety Regulations and the Protection of the Environment Operations Act 1997, shall be implemented to minimise dust to neighbouring residents and businesses and ensure any airborne substance is kept within the boundaries of the site

Measures may include but not be limited to:

- Water sprays
- Bunker storage
- Limiting size of stockpiles and covering stock piles
- Vertical barriers e.g. fencing with fine mesh attached
- Exhaust and capture

Reason: To minimise dust to neighbouring residents and businesses and avoid air pollution

Site dewatering during works

Any excavation dewatering shall include sediment and acid soil controls to the design of a suitably qualified person and to the satisfaction of Council and the Certifier.

Reason: To ensure water pollution does not occur.

During demolishing excavation works

As recommended by Environmental Investigation Services ;
Inspections during demolition and excavation works must be undertaken to assess any unexpected conditions or subsurface facilities that may be discovered between investigation locations. This should facilitate appropriate adjustment of the works programme and schedule in relation to the changed site conditions. Inspections should be undertaken by experienced environmental personnel.

Inspections shall confirm compliance with plans required as a condition of this approval (prior to issue of a Construction Certificate) for Acid Sulfate Soil Management; Asbestos Management; Remediation Action Plan (RAP); and the Hazardous Materials Assessment (Hazmat)

Reason: To ensure ongoing management of potential environmental hazardous and potential pollution

Off-site Disposal of Contaminated Soil - Chain of Custody

‘Chain of Custody’ documentation shall be kept and submitted for the transport of the validated fill material from the site.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority and Council within seven (7) days of transport.

Reason: For protection of environment.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Prior to occupation certificate - certification

Suitably qualified persons shall confirm compliance of all works with plans required as a condition of this approval (required prior to issue of a Construction Certificate) for Acid Sulfate Soil Management; Asbestos Management; Remediation Action Plan (RAP); and the Hazardous Materials Assessment

(Hazmat)

Reason: To ensure that upon completion of all works Environmental compliance has been achieved.