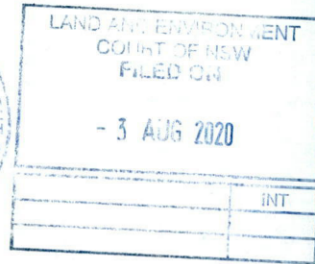


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REMEDIAL ACTION PLAN

6 EDITH STREET, KINGSWOOD NSW 2747

Job Number: JN00869
Issued date: 19 June 2020
Prepared for: Liquid Gold 888 Pty Ltd
Client Address: Unit 1, 26-28 Cann Street, Guilford NSW 2161
Report by: Craig Wellings; Principal Environmental Scientist
Total No of pages: 36

This and the following ³⁹ pages is
the annexure marked "G" referred to
Affidavit of Anthony Boskovitz
~~sworn / affirmed~~
at Edgedcliff this 31st day of July 2020
before me



Solicitor / ~~Katherine Boskovitz~~ Tiffany Steljar

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6 EDITH STREET, KINGSWOOD NSW 2747

Executive Summary

This document is a Remedial Action Plan (RAP) developed by EHO consulting Pty Ltd (EHO) on behalf of Liquid Gold 888 Pty Ltd (the Client), for the property located at 6 Edith Street, Kingswood NSW 2747 (the Site). This RAP has been based on the findings of the EHO Consolidated Phase 2 (Detailed) Environmental Site Assessment (P2ESA) Report (JN869-P2ESA-RN03622, 14 March 2020), (Ref.1), for environmental site investigations conducted at the Site, between September 2019 and February 2020.

Background

On the 9 September 2019, EHO Consulting Pty Limited (EHO) were engaged by Mr Anthony Nakhoul of Liquid Gold 888 Pty Ltd (the Client), to undertake a Phase 2 Environmental Site Assessment (P2ESA) of the property located at 6 Edith Street, Kingswood NSW 2747 (the Site).

The objective of the assessment was to provide an assessment of the Site in accordance with the requirements of the NSW State Environmental Planning Policy No 55 – Remediation of Land (SEPP 55), assessing suitability of the Site in support of a development application (DA) submitted by the Client to develop the Site as a boarding house in accordance with developments permissible under the Sydney Regional Development Plan (No.2-1997), (Ref.11).

On the 5 February 2020, EHO revisited the Site, to undertake additional investigation.

The objective of the expanded investigation was to investigate the potential for contaminated fill material to have been used to level in the backyard.

On the 2 June 2020, EHO revisited the Site, to undertake additional investigation of remaining areas of contamination potential.

The objective of the additional investigation was to investigate the potential for contaminated fill material to have been used in the raised garden beds, the rear driveway and adjacent both sides of the front driveway, as well as to field screen locations sampled in February 2020 for the presence of volatile organic compounds (VOCs).

Following completion of the June 2020 P2ESA assessment, the resulting report was submitted to Penrith City Council (Council) by the Client in support of the current development application (DA) for the Site. As a result of Council's review and recommendations, a revised Consolidated P2ESA report (Ref.1) was prepared combining the data and findings of the September 2019, February 2020 and June 2020 investigations, addressing data gaps identified by Council in the previous reports.

P2ESA Findings

The investigations of the property located at 6 Edith Street, Kingswood NSW 2747, has found that fill has been used for the purposes of levelling the front yard within the fence line, constructing the front and rear driveways and in formation of garden beds.

No VOCs were detected in any of the field screening completed.

EHO concludes that based on the results of the combined investigations that the fill material which has been encountered on the Site, is suitable from a chemical and physical (asbestos) contamination perspective for the current and the proposed site use, with the exception of:

- the fill material used to level the south western portion of the Site (the front yard) which has been found to unsuitable for both the current and proposed site use due to the presence of friable asbestos / asbestos fines (FA/AF).

Estimated Volume of Unsuitable Material

Based on the bore logs and observations of the surrounding topography, it is estimated that the uncontrolled fill covers an area of approximately 100 m², to an average depth of 0.25 m below the existing surface of the front yard. As the fill has been observed to have been placed directly over natural material is recommended that a minimum of 50 mm of the surface of the natural material from the contaminated area is removed with the fill to ensure that all unsuitable material is removed from site. This means that for the purposes of these calculations the average depth of material to be remediated is approximately 0.3 m. Based on the above the total estimated volume of the uncontrolled fill is in the order of 30 m³.

Based on a bulking factor of 1.7 t/m, it is estimated that the unsuitable fill represents approximately 50 - 55 t.

RAP Recommendations

It is considered that for the purposes of this RAP, Remedial Option 2 – Offsite Disposal be adopted as the preferred remedial option for asbestos contaminated fill at the Site.

The material requiring remediation would be classified by the NSW EPA Waste classification guidelines – Part 1: Classifying Waste 2014 (Ref.2) as:

- Special Waste, Asbestos Waste (General Solid, Non-putrescible).

This RAP has been prepared based on a combination of regulatory, economic, environmental and human health considerations. Based on the matters considered and the findings of the most recent site assessment (Ref.1) it is considered that, if the recommendations of this RAP are followed, the Site can be safely remediated to a state which is commercially viable and suitable for the proposed use in accordance with the current DA.

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Appendix B – Waste Classification Summary

1. Introduction

1.1 Background

On the 9 September 2019, EHO Consulting Pty Limited (EHO) were engaged by Mr Anthony Nakhoul of Liquid Gold 888 Pty Ltd (the Client), to undertake a limited Phase 2 Environmental Site Assessment (P2ESA) of the property located at 6 Edith Street, Kingswood NSW 2747 (the Site).

The P2ESA was requested by the client in order to address comments made by Penrith City Council (Council) in response to a development application submitted by the Client to redevelop the Site:

- DA19/0705 – Demolition of Existing Structures and Construction of a Two (2) Storey Boarding House Containing 12 Boarding Rooms, Manager's Room and Basement Car Parking.

Specifically, Council noted:

From historic aerial photographs it can be seen that fill material has been imported onto the property. Fill can be seen imported onto the south-west portion of the property at various points in time between 9 May 2012 and 5 May 2016. The piles of fill identified within this time frame vary in size and colour. The origin and contamination status of the fill is not known and therefore Council cannot, with certainty, be satisfied that the site is not contaminated.

EHO completed the P2ESA report (EHO: JN00869-P2ESA-RN02035_Rev0; 28 September 2019 (Ref.3)), in order to investigate the depth, physical and chemical characteristics of the fill material concerning Council, which historic photos indicated was imported onto the south-west portion of the Site (used to level the front yard within the fence line) between 9 May 2012 and 5 May 2016.

Following completion of the P2ESA assessment, the resulting report was submitted to Penrith City Council (Council) by the Client in support of the current development application (DA) for the Site. Council reviewed the P2ESA report within the context of the DA and provided written response to the Client on 8 November 2019. The main actions required as a result of Council's review is that an expanded P2ESA be completed to assess the potential for contaminated fill to have also been used in the backyard of the Site and a Remedial Action Plan (RAP) must be prepared for the Site based on the findings of the expanded P2ESA, with development consent sought for the recommended remediation works.

On the 5 February 2020, EHO revisited the Site, to undertake additional investigation.

The objective of the expanded P2ESA is to investigate the potential for contaminated fill material to have been used in the backyard of the Site.

EHO completed the expanded P2ESA report (EHO: JN00869-P2ESA-RN03358 (Ref.4)), on 18 February 2020. At the same time a Remedial Action Plan (RAP) was prepared for the Site based on the findings of the September 2019 and February 2020 P2ESA reports.

On the 2 June 2020, EHO revisited the Site, to undertake additional investigation of remaining areas of contamination potential.

The objective of the additional investigation was to investigate the potential for contaminated fill material to have been used in the raised garden beds, the rear driveway and adjacent both sides of the front driveway, as well as to field screen locations sampled in February 2020 for the presence of volatile organic compounds (VOCs).

Following completion of the June 2020 P2ESA investigation, reports (Consolidated P2ESA (Ref.1) and this RAP) were prepared to be submitted to Penrith City Council (Council) by the Client in support of the current development application (DA) for the Site.

This document is the Remedial Action Plan (RAP) developed by EHO on behalf of the Client, for the Site, based on the findings of the EHO Consolidated Phase 2 (Detailed) Environmental Site Assessment (P2ESA) Report (JN869-P2ESA-RN04645, 18 June 2020), (Ref.1), for environmental site investigations conducted at the Site, between September 2019 and June 2020.

1.2 Requirements of Remedial Action Plan

In accordance with the requirements of the NSW OEH Guidelines for Consultants Reporting on Contaminated Sites, 2011 (Ref.5):

The RAP should:

- set remediation goals that ensure the remediated site will be suitable for the proposed use and will pose no unacceptable risk to human health or to the environment
- document in detail all procedures and plans to be implemented to reduce risks to acceptable levels for the proposed site use
- establish the environmental safeguards required to complete the remediation in an environmentally acceptable manner
- identify and include proof of the necessary approvals and licences required by regulatory authorities.

It is noted that the NSW EPA has developed draft updates to the reporting guidelines for contaminated sites (Ref.5) which were released for general review and comment in August 2019 however, as the draft guidelines have not yet been ratified, they have not been used in the preparation of this document. This is understood to be Council's preferred approach to the preparation of this RAP.

2. Scope of Work

In order to meet the site assessment objective EHO carried out the following scope:

- Mobilisation of an experienced contaminated land specialist to the Site on the following dates;
 - o 10 September 2019; and
 - o 10 February 2020;
- Undertaking of the requisite service clearance and site familiarisation;
- Collection of a total of 11 primary soil samples from;
 - o a total of three (3) locations in the south western corner of the property (the front yard) where fill has been imported to level the property within the fence line;
 - o a total of three (3) locations in the northern portion of the property (the backyard), to investigate the presence and extent of any fill;
 - o a total of two (2) samples in the raised garden beds in the south eastern corner of the backyard;
 - o one (1) sample collected from the fill used to construct the driveway in the northern portion of the backyard;
 - o a total of two (2) locations on either side of the driveway in the front yard, including in the garden bed north of the driveway;
 - o Field screening of all sampled locations for the presence of volatile organic compounds (VOCs).
- Submission of all soil samples to an independent NATA accredited laboratory to test for the contaminants of potential concern;
- Review of historical site records, public and Government registers, aerial photographs; and
- Comparison of laboratory results against the adopted site assessment criteria; and
 - o Production of this consolidated P2ESA report in General accordance with the NSW NSW Contaminated land guidelines - Consultants Reporting on contaminated land 2020, (Ref.5).

3. Site Identification

This section is summarised from the Consolidated P2ESA Report, EHO JN869-P2ESA-RN04645 (Ref.1). Should further detail regarding the site setting be required it is recommended that the Consolidated P2ESA report be reviewed.

Figures detailing the site location, layout and sampling locations are provided in **Appendix A**.

3.1 Site Identification

The Site is identified as:

- 6 Edith Street, Kingswood NSW 2747;
- Lot 55 on Deposited Plan (DP) – 241989;
- 33°45'54"S / 150°43'34"E;
- Elevation 44 mAHD.
- Area – approximately 610 m².

3.2 Land Zoning

The following land zoning is provided by:

- Penrith Local Environment Plan 2010 – Amendment No.4, (Ref.6).

Land Zoning Map – Sheet LZN_013

3.3 Site Setting

The Site is located in a street of primarily single storey, brick and tile, detached dwellings with fenced boundaries and is on the eastern site of Edith Street Kingswood NSW 2747.

3.3.1 Surrounding Properties

Surrounding properties are all residential, with a complex of single storey semi-detached townhouses located on the opposite site on the street on a battle-axe block, behind the first row of houses.

There is no industry in the immediate area nor sensitive receivers other than residences for several hundred metres in any direction. The western boundary of Western Sydney University is located approximately 350 m to the east.

3.3.2 Topography

The topography of the area is generally flat, with Edith Street sloping gently from the south. The yards of the residences are generally raised slightly above the alignment of Edith Street indicating that either, general filling of the lots may have occurred at the time of initial development of the area or that the alignment of Edith Street follows a natural depression. However, Edith Street and the surrounding area do not appear to be flood prone.

3.3.3 Observations

No waste, staining of the surface or activities causing dust being generated were observed on the Site.

No odours were noted as coming from the Site.

3.3.4 Sensitive Receptors

The following sensitive receptors have been identified within 200 m of the Site:

- Real Life Church (Place of Worship) – 137 m north-east; and
- Kingswood Public School (Primary School) – 146 m north-east.

3.3.5 Salinity Hazard

Salinity Hazard:

- Very high
 - Western Sydney Hydrogeological Landscapes

3.3.6 Soil

Soil Group (Erosional):

- Soils—shallow (<100 cm) dark podzolic soils or massive earthy clays on crests;
- moderately deep (70–150 cm) red podzolic soils on upper slopes;
- moderately deep (<150 cm) yellow podzolic soils and prairie soils on lower slopes and drainage lines.

3.3.7 Acid Sulphate Soil

Acid Sulphate Soil (ASS) probability of occurrence:

- Extremely low probability;
 - Atlas of Australian Acid Sulfate Soil (Table 1.3.2), Cq(p4): ASS in inland lakes, waterways, wetlands and riparian zones (Ref.7).

3.3.8 Geology

Description; Shale, carbonaceous claystone, claystone, laminite, fine to medium-grained lithic sandstone, rare coal and tuff.

3.3.9 Hydrogeology

Based on a review of the available data, standing water levels are recorded as being between 6 – 69 m below the top of bore. As standing water levels as measured in bores are resultant of the pressure of the overlying material above the aquifer, it is reasonable to expect that the level of the actual aquifer intercept would be considerably lower than the standing water levels recorded.

3.3.9.1 Local

Based on the topography and receiving water bodies the localised groundwater flow would be to the east, towards Werrington Creek.

3.3.9.2 Regional

Based on the topography and receiving water bodies the regional groundwater flow would be to the south and west, towards the Nepean River.

3.3.10 Surface Water

3.3.10.1 Surface Water Features

No surface water features were observed on the Site.

The nearest receiving water body is Werrington Creek, approximately 650 m east of the Site.

3.3.10.2 Surface Water Direction

Based on the topography surface water at the Site flows toward Edith Street, for collection in the local stormwater system. Collected flow is expected to discharge to Werrington Creek, east of the Site before discharging to the Hawkesbury River to the north. Due to the topography the creeks in the Kingswood area generally flow toward the north-east and discharge to the Hawkesbury River, rather than the closer Nepean River to the south and west.

4. Site History

This section is summarised from the consolidated P2ESA report, EHO JN869-P2ESA-RN03622 (Ref.1). Should further detail regarding the site history be required it is recommended that the consolidated P2ESA report be reviewed.

4.1 Land Use

The land use has been assessed by reviewing aerial photographs dating between 1943 and 2019. Pertinent observations to the RAP, regarding land use of the Site and surrounding properties are as follows:

- 1943 – Site and surrounding land on all sides is cleared but undeveloped. Edith Street has not been constructed, with Second Avenue (approximately 150 m north) and Jones Street (approximately 150m west) the closest existing roads. Nearest development appears to be a rural residence and sheds fronting Jones Street, approximately 150 – 200 m west of the Site;
- 1975 – Edith Street has been constructed and urban residential development has occurred on both sides of Edith and Manning Streets as well as on the southern side of Second Avenue between Edith and Jones Streets. Development includes construction of the residence on the Site. Construction has commenced on the initial section University of Western Sydney to the east of Dunstan Avenue, approximately 400 – 500 m east of the Site;
- 2019 - Site and surrounding land generally as per 1975 with the exception of the development and expansion of the Western Sydney University campus and Newmarch House to the east of Manning Street, the street which runs parallel and to the east of Edith Street.

In addition to the aerial photographs reviewed in the preparation of consolidated P2ESA report report (Ref.1), from comments provided by Council, EHO understands that Council have reviewed higher resolution photographs which indicate that fill material was imported onto the south-west portion of the Site between 9 May 2012 and 5 May 2016.

4.2 Federal, State and Local Environmental Constraints

The Site and surrounding properties within 200 m have been checked for the presence of Federal, State and Local environmental constraints with the results of the checks as follows:

- Local Environment Plan (LEP) Heritage sites;
 - Site ID – 098; Kingswood Public School, approximately 90 m east;
 - Site ID – 670; Former teacher’s residence, approximately 200 m north-east;

4.3 Site History Searches

Searches completed as part of the site history prepared for the consolidated P2ESA report (Ref.1), did not identify any of the following on the Site or surrounding properties.

- Notification to the NSW Contaminated Public Land Register;
- Potentially contaminated areas;
- Licences held under the POEO Act (Ref.8);
- Listing under the National Pollutant Inventory;
- Listing on the Public Register of Properties Affected by Loose-Fill Asbestos Insulation;
- Former potentially contaminating land;

- Potentially contaminating activities;
- Natural hazards; and/or
- Coastal Management issues.

4.4 Contaminants of Potential Concern

Based on results of analyses completed during the P2ESA the following have been identified as contaminants of potential concern (CoPC) at the Site:

- Asbestos in soil;
 - o >2mm - <7mm FA/AF detected at or above the adopted human health site assessment criteria (0.001 %w/w) – (Ref.9), in two (2) of three soil samples collected; and
- Lead (Pb);
 - o 95% UCL exceeds the NSW EPA Waste Classification Guidelines – SCC without TCLP, General Solid Waste (CT1 – 100 mg/kg) – (Ref.2).

None of the following chemical CoPC, for which assessment was undertaken on samples collected within the uncontrolled fill, was found to exceed human health criteria (Ref.9), or the NSW EPA General Solid Waste classification (Ref.2):

- Total recoverable hydrocarbons (TRH);
- Benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN);
- Polycyclic aromatic hydrocarbons (PAH);
- Phenols;
- Polychlorinated Biphenyls (PCBs);
- Organochlorine Pesticides (OCPs);
- Metals (As, Cd, Cr, Cu, Hg, Ni, Zn).

1. Site Assessment Criteria

The following site assessment criteria were adopted in the preparation of the consolidated P2ESA report (Ref.1).

4.4.1 Chemical Assessment

NEPC National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013) – Schedule B1; Guideline on Investigation Levels for Soil and Groundwater. (Ref.9)

- Table 1A(1) Health investigation levels (HILs) for soil contaminants
 - Residential A – Residential with garden/accessible soil.
- Table 1A(3) Soil Health Screening Levels (HSLs) for vapour intrusion
 - HSL A & HSL B; Low – high density residential: Clay - 0 m to <1 m.
 - Where values for Clay are not provided in the table, the closest available values have been adopted as a site-specific screening criteria;
- Table 1B(5) Generic EILs for aged As, fresh DDT and fresh naphthalene in soils irrespective of their physiochemical properties;
 - Ecological Investigation Levels (mg total contaminant/kg)
 - Urban residential and public open space;
- Table 1B(6) ESLs for TPH fractions F1-F4, BTEX and benzo(a)pyrene
 - Urban residential and public open space.

4.4.2 Asbestos Assessment

NEPC National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013) – Schedule B1; Guideline on Investigation Levels for Soil and Groundwater (Ref.9).

- Table 7. Health screening levels for asbestos contamination in soil
 - Residential A – with garden/accessible soil.

4.4.3 Waste Assessment

In addition to the assessment criteria used to characterise the Site in terms of contamination status, the following waste classification criteria have been applied to the data reported within the consolidated P2ESA, for the purpose of evaluating the remedial options explored within this RAP:

- NSW EPA Waste Classification Guidelines – Part 1: Classifying Waste, November 2014 (Ref.2);
 - Step 1: Is the waste Special Waste; and
 - Table 1: CT1 & CT2 values for classifying waste by chemical assessment without the TCLP test.

5. Results

5.1 Chemical Results

5.1.1 Chemical Results Exceeding Criteria

No chemical result was found to exceed the chemical site screening criteria in any sample, for any of the analytes which the consolidated P2ESA report has considered. Potential chemical contaminants screened are as listed in Section 4.4 of this RAP.

5.1.2 Chemicals Detected but Not Exceeding Criteria

Table 1, summarises chemical contaminants detected above the laboratory limits of reporting (LOR) but not exceeding the adopted site assessment criteria. Where analytes have not been detected above the LOR it is stated within the table.

Table 1 Chemical Assessment Summary

Chemical	LOR (mg/kg)	Range of Results (mg/kg)	Assessment Criteria (mg/kg) NEPM 2013 Ref.2
Metals			
– Arsenic (As)	– 1	– 1 - 8	– 40 ^c
– Cadmium (Cd)	– 0.3	– <0.3 – 0.4	– 20 ^a
– Chromium (Cr)	– 0.5	– 4.3 - 20	– 100 ^a
– Copper (Cu)	– 0.5	– 3.4 - 98	– 6000 ^a
– Mercury (Hg)	– 0.05	– <0.05 – 0.38	– 40 ^a
– Nickel (Ni)	– 0.5	– 3 - 13	– 400 ^a
– Lead (Pb)	– 1	– 6 - 120	– 300 ^a
– Zinc (Zn)	– 2	– 21 - 330	– 7400 ^a
PAH			
– Carcinogenic PAHs	– 0.3	– <0.3 – 0.7	– 3 ^a
– Total PAHs	– 0.8	– <0.8 - 3	– 300 ^a
TRH			
– F1	– 25	– All less than LOR	– 50 ^b
– F2	– 25	– All less than LOR	– 120 ^d
– F3	– 90	– <90 – 920	– 1300 ^d
– F4	– 120	– <120-360	– 5600 ^d
BTEXN			
– Benzene	– 0.1	– All less than LOR	– 0.5 ^b
– Toluene	– 0.1	– All less than LOR	– 105 ^d
– Ethylbenzene	– 0.1	– All less than LOR	– 55 ^b
– Xylenes	– 0.3	– All less than LOR	– 40 ^b

Chemical	LOR (mg/kg)	Range of Results (mg/kg)	Assessment Criteria (mg/kg) NEPM 2013 Ref.2
- Naphthalene	- 0.1	- All less than LOR	- 3 ^b
Phenols			
- Total Phenols	- 0.5	- All less than LOR	- 3000 ^a
- Total Cresol	- 1.5	- All less than LOR	- 400 ^a
- Pentachlorophenol	- 1	- All less than LOR	- 100 ^a
OC & OP Pesticides			
- DDT	- 0.1	- All less than LOR	- 3 ^c
- DDT + DDE + DDD	- 0.1	- All less than LOR	- 240 ^a
- Aldrin & Dieldrin	- 0.2	- All less than LOR	- 6 ^a
- Chlordane	- 0.1	- All less than LOR	- 50 ^a
- Endosulfan	- 0.2	- All less than LOR	- 270 ^a
- Endrin	- 0.2	- All less than LOR	- 10 ^a
- Heptachlor	- 0.1	- All less than LOR	- 6 ^a
- HCB	- 0.1	- All less than LOR	- 10 ^a
- Methoxychlor	- 0.1	- All less than LOR	- 300 ^a
- Mirex	- 0.1	- All less than LOR	- 10 ^a
- Chlorpyrifos	- 0.2	- All less than LOR	- 160 ^a
PCBs	0.2	All less than LOR	1

1) Tabulated results are combined from both investigations (Sept 2019 and Feb 2020).

2) A full results summary table with comparison of chemical analyses to the adopted site assessment criteria is presented in the consolidated P2ESA report, Appendix B (Ref.1).

a) Table 1A(1), (Ref.9);

b) Table 1A(3), (Ref.9);

c) Table 1B(5), (Ref.9);

d) Table 1B(6), (Ref.9).

1.1.1 Asbestos

Asbestos was detected as asbestos fines in two (2) of the six (6) samples submitted to the laboratory. Both samples in which asbestos was detected were in fill collected from the south western portion of the Site (front yard). Table 2 summaries the concentration of asbestos in soil.

Table 2 Asbestos in Soil

Sample No	Location	Form of Asbestos Detected	Asbestos observed in soil	Estimated Fibres in Soil (%w/w)	Result >2mm- <7mm (%w/w)	Assessment Criteria – FA/AF (%w/w)
S1	Front yard	>2mm - <7mm FA/AF	Yes	<0.01	0.001	0.001
S2		None detected	No	<0.01	-	

Sample No	Location	Form of Asbestos Detected	Asbestos observed in soil	Estimated Fibres in Soil (%w/w)	Result >2mm- <7mm (%w/w)	Assessment Criteria – FA/AF (%w/w)
S3	Backyard	>2mm - <7mm FA/AF	Yes	<0.01	0.002	
F2		None detected	No	<0.01	-	
F3		None detected	No	<0.01	-	
BH4		None detected	No	<0.01	-	
BH5		None detected	No	<0.01	-	
BH6		None detected	No	<0.01	-	
G1		None detected	No	<0.01	-	
G2		None detected	No	<0.01	-	
F1	None detected	No	<0.01	-		

1. A full results summary table with comparison of asbestos results to the adopted site assessment criteria is presented in the Consolidated P2ESA report, Appendix B (Ref.1).

1.1.2 Waste Classification

Based on the results reported in the consolidated P2ESA report (Ref.1), soil at the site which has been deemed unsuitable for the current and/or proposed site use, based on comparison to the adopted site assessment criteria has been compared to the NSW EPA Waste Classification Guidelines (Ref.2), to allow for evaluation of remedial options for the Site. The unsuitable material identified is specifically fill used to level the front yard in the south western corner of the Site, within the fence line.

In accordance with the requirements of the NSW EPA Waste Classification Guidelines (Ref.2), Step 1 asks “is the waste special waste”?

‘Special waste’ is a class of waste that has unique regulatory requirements. The potential environmental impacts of special waste need to be managed to minimise the risk of harm to the environment and human health (Ref.2).

In this case the unsuitable fill in the front yard of the Site, meets the classification of Special waste – asbestos waste.

In addition to classification as Special waste, the material needs to be further assessed against the specific contaminant concentration (SCC) limits provided within Table 1 of the Waste Guidelines (Ref.2), so that the waste classification can be completed.

Based on comparison to the Table 1 SCC -CT1 criteria (**Ref.2**) the fill used to level the front yard site in the south western corner of the Site, within the fence line, exceeds the CT1 criteria for lead (Pb) – (100 mg/kg) only and so would be classified as:

- **Special Waste; Asbestos Waste (Restricted Solid, Non-putrescible).**

Statistical analysis of Pb results in the front yard of the Site are summarised below:

- Number of samples: 3
- Minimum: 89 mg/kg
- Maximum: 120 mg/kg
- Std Dev: 16.26
- 95% UCL: 129.1 mg/kg

As the 95% UCL for Pb is exceeded by less than 1.3 times the CT1 – General Solid Waste criteria (**Ref.2**), it is considered that, further analysis on the fill in the front yard for Toxicity Characteristic Leaching Procedure (TCLP) for Pb, has potential for the material to be reclassified under Table 2 of the Guidelines (**Ref.2**) to the lower classification of ‘Special Waste; Asbestos Waste (General Solid, Non-putrescible)’.

A table comparing the results from fill encountered in the front yard of the Site (**Ref.1**), with the Table 1 SCC limits (**Ref.2**), is provided in **Appendix B** of this RAP.

2. Site Characterisation

2.1 Soil

2.1.1 Front Yard

The laboratory results indicate that the fill material which has been placed in the front yard of the Site to level the yard within the fence line and the material on both sides of the driveway, including the small garden bed on the northern side, is suitable from a chemical contamination perspective for the proposed site use, that being a boarding house. However, asbestos in the form of asbestos fines (>2 mm /<7 mm) has been detected in two (2) of the three (3) samples collected in the south western portion within the fill used to level the yard and at concentrations equal to, or greater than the adopted site criteria for this assessment (see Section 5.6). This means that the fill present in the south-western corner of the front yard is unsuitable, not only for the proposed but also the current site use.

2.1.2 Back Yard

The laboratory results indicate that the fill material which has been placed in the north-western section of the back yard of the Site, to level the yard and construct the driveway and the fill within the raised garden beds in the south eastern corner of the yard is suitable from both a chemical and physical (asbestos) contamination perspective, for current and the proposed site use, that being a boarding house with a basement.

2.1.3 Inaccessible Areas

The presence of fill under the footprint of inaccessible areas including the house, the garage, the concrete driveway and the studio/shed has not been assessed and cannot be discounted. Once the structures are removed from site, the footprints should be investigated for the presence of fill materials. Should fill be identified it will need to be sampled, analysed, assessed and managed in accordance with any contaminant characteristics exhibited.

2.2 Groundwater

Results indicate that the potential for the Site to contaminate groundwater is negligible. It is noted however, that the proposed development includes a basement. A review of the surrounding groundwater data indicates that any basement excavation is unlikely to intercept the regional aquifer due to it being likely to be several to tens of metres below the site surface but due to the distance of any registered groundwater bores (several hundred metres to the closest) from the site, the potential for a basement excavation to intercept a perched or local near surface aquifer cannot be discounted.

2.2.1 Exposure Pathways

The primary exposure route to the unsuitable material in the front yard is inhalation:

- dust created by disturbance of the asbestos contaminated fill.

2.2.2 Sensitive Receptors

The exposure risk is to the following receptors:

- Site occupant/s and visitors (including maintenance workers),

- residents and visitors to the neighbouring properties and
- passers-by, particularly pedestrians.

3. Remedial Action Plan

3.1 Remediation Goal

The remediation goal to be achieved for the Site in is to render the Site suitable for the current and/or proposed site uses, those uses being:

- Current
 - o Low density residential with assessible soil.
- Proposed
 - o A multi-level boarding house with a basement.

3.2 Extent and Volume of Potential Remediation

Unsuitable fill was identified in all bores advanced in the front yard at the site in depths from 0.25 m toward the house, increasing up to 0.43 m toward the south-western corner of the front fence.

Based on the bore logs and observations of the surrounding topography, it is estimated that the uncontrolled fill covers an area of approximately 100 m², to an average depth of 0.25 m below the existing surface of the front yard. As the fill has been observed to have been placed directly over natural material is recommended that a minimum of 50 mm of the surface of the natural material from the contaminated area is removed with the fill to ensure that all unsuitable material is removed from site. This means that the for the purposes of these calculations the average depth of material to be remediated is approximately 0.3 m. Based on the above the total estimated volume of the uncontrolled fill is in the order of 30 m³.

Based on a bulking factor of 1.7 t/m, it is estimated that the unsuitable fill in the front yard represents approximately 50 - 55 t.

3.3 Remedial Options

As the main contaminant of potential concern is asbestos in soil, three (3) options are considered to be technically viable for the purpose of remediating the Site.

The NEPM 2013 (Ref.9), Section 6 lists the hierarchy of site remediation and/or management options. These are in order of preference:

1. On site treatment;
2. Off site treatment;
3. Containment;
4. Removal; or
5. Ongoing management.

As the CoPC identified is asbestos fines in soil, only three (3) options from the above hierarchy are considered to be technically and commercially viable, for the purpose of remediating the Site.

1. Onsite Containment;
 - a. Encapsulating the material on site; or
2. Offsite Disposal;

- a. Permanently removing the material from site for disposal as classified waste; or
- 3. Ongoing Management;
 - a. the remedial option of ongoing management, that is leave the site contamination status as is and to manage the risks on an ongoing basis is not considered a viable option for the current or proposed site uses, based on the high risk that the contamination poses to human health and so has also been eliminated from further consideration.

5.1 Discussion of Potential Options

5.1.1 Remedial Option 1 – On site Containment

Based on the nature of the development proposed it is considered that Option 1 would be likely to require some or all elements of the proposed development to be amended in order to incorporate the contaminated material appropriately. Such an amendment is likely to require considerable additional monetary outlay to achieve the required redesign and to develop a site-specific EMP. There is also potential that the amenity of part or all of the Site may be limited, depending on the design adopted and the required management strategy developed. Consideration of the advantages and disadvantages of onsite management is presented in Table 3.

Table 3 Remedial Option 1 – On site Containment

Advantages	Disadvantages
Elimination of risk associated with transporting waste	Substantial cost associated with redesign
Reduction of waste volumes received at facility	Additional timing associated with redesign
Reduced waste disposal costs	Need for development of EMP
Reduced human health risk	Potential requirements for ongoing monitoring
-	Additional time and costs for amended DA approval
-	Reduced amenity of site
-	Human health risk reduced but remains

5.1.2 Remedial Option 2 – Offsite Disposal

Remedial Option 2 would require excavation of the contaminated fill under controlled conditions and tracked transport of the excavated material via road as classified waste to an appropriately licenced waste receiveal facility for disposal. Based on the results of analyses completed to date on the fill, the material would be classified as (Ref.2): Special Waste; Asbestos Waste (Restricted Waste – Non-putrescible).

Consideration of the advantages and disadvantages of offsite disposal to an appropriately licenced waste receiveal facility is presented in Table 4.

Table 4 Remedial Option 2 - Offsite Disposal

Advantages	Disadvantages
No redesign delays or costs	Waste tracking and disposal costs
Council should be able to consider works as a modification to current DA	Risk associated with transport of waste
No need for EMP or ongoing monitoring	Additional cost of analysis to reclassify material
Maximised amenity of site based on proposed development	Costs associated with disposing of material as Restricted Waste, if not reclassified
Human health risk eliminated from site ie suited for sensitive land use such as residential sites	Sampling, analysis and certification costs to reclassify material
Methodology is simple and easily employed	Engagement of Class A Asbestos Removalist
Minimisation of timeframes to render the site suitable for the proposed development.	Requirement for post-removal validation

5.1.3 Preferred Remedial Option

Based on the consideration of the potential remedial options presented above, Option 2 – Offsite Disposal, has a greater balance of advantages versus disadvantages when compared with Option 1- Onsite Management. In addition,

- The material is relatively benign from a chemical perspective having an SCC of ‘General solid, waste and so poses low risk to human health and/or the environment, during removal, transport and disposal provided it is managed appropriately;
- the costs of disposing of the material offsite based on are lower than those likely to be incurred for long- term onsite management;
- removal of the contaminated material from reduces the long-term human health risk associated with Site, to the identified sensitive receivers.

For this reason, it is recommended that for the purposes of this RAP, the following be adopted as the preferred remedial option for asbestos contaminated fill at the Site.

Remedial Option 2 – Offsite Disposal

5.2 Legislative Requirements of Selected Remedial Option

In NSW, asbestos is regulated under the NSW Work Health and Safety Act 2011 (WHS Act 2011), (Ref.10) and the Work Health and Safety Regulation 2011 (WHS Regulation 2017), (Ref.11). Chapter 8 of the WHS Regulation 2017 outlines the specific requirements for asbestos management, removal work, and licensing.

In accordance with NSW WHS Regulation 458 the following requirements are to be met:

- A person conducting a business or undertaking who commissions the removal of asbestos at the workplace must ensure asbestos removal work is carried out only by a licensed asbestos

removalist who is appropriately licensed to carry out the work, unless specified in the WHS Regulations that a licence is not required.

- A removal permit or license from Safe Work NSW is required to remove all friable asbestos.
- A clearance inspection and clearance certificate is needed upon the completion of the removal of asbestos requiring a licence or permit.

Asbestos removalists who are engaged to carry out the recommendations of this RAP are required to follow all relevant licencing requirements, WHS laws and codes of practice, during all stages of the remediation of the Site.

5.2.1 State Environmental Planning Policy No 55 – Remediation of Land

A review of the NSW State Environmental Planning Policy No 55 (SEPP 55) – Remediation of Land (**Ref.12**) indicates that the remediation guided by this RAP would be considered to be:

- Category 2 remediation work: work not requiring consent.

As such were the remediation to be undertaken to ensure that the Site was being made suitable for the current use there would be no formal notification required to regulators. However, as the remediation is part of a DA for redevelopment of the Site, this RAP will need to be submitted to Council as the appropriate regulator, for approval before remedial works on the Site proceed.

5.2.2 Site Validation – Unsuitable Material

Following, removal of the identified unsuitable material from the Site, the remediated area will require validation testing. Based on the results returned to date as presented in the consolidated P2ESA report, the exposed soil in the remediated area will require sampling and analysis for:

- Asbestos in soil (%w/w) and should be assessed against the adopted site assessment criteria (**Ref.9**).

The frequency of validation testing should be in accordance with:

- the Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia 2009 (**Ref.13**); and (if required);
- AS 4482 - Guide to the investigation and sampling of sites with potentially contaminated soil (**Ref.14**).

Following validation, the results will need to be presented in a site Validation report, to be prepared in accordance with the requirements of the NSW EPA (2011), Guidelines for Consultants Reporting on Contaminated Sites (**Ref.5**).

A clearance certificate prepared by a NSW SafeWork licenced asbestos assessor (LAA) will need to accompany the Validation report, in accordance with the requirements of NSW WHS Regulations (**Ref.11**).

5.2.3 Inaccessible Areas

The presence of unsuitable under the footprint of inaccessible areas including the house, the garage, the concrete driveway and the studio/shed has not been assessed and cannot be discounted. Once the structures are removed from site, the footprints should be investigated for the presence of fill

materials. Should fill be identified it will need to be sampled, analysed, assessed for the list of CoPC listed within Section 4.4 of this RAP.

Following assessment, waste classification and remedial action may be required. Depending on any such further assessment needed, any unsuitable material if encountered, may be able to be managed under the existing strategies of this RAP. However, if the material is found to contain additional CoPC/s, then the RAP may need to be revised to guide appropriate remediation outcomes.

If remediated, the areas of the Site which are currently inaccessible will need to be validated and the results included in the Validation report to be prepared for the Site.

5.2.4 Contingency Plan

If validation sampling indicates that unsuitable material remains on the site, the following contingency actions are recommended to ensure that to the extent practicable, the remediation goal stated within this RAP is met:

- Visually assess the remediated area for the presence of unsuitable material;
- If unsuitable material (fill of any description) is identified, undertake potholing to establish the depth;
- Once the depth of the unsuitable material/s is established, excavate the identified area to a depth which is at least 50 mm deeper than the deepest extent of unsuitable material which potholing has identified.

6. Interim Site Management Plan

This section provides detail on the controls required to be implemented prior to remediation commencing.

6.1 Remedial Action Plan (RAP)

Submission of RAP to Council and SafeWork NSW for approval.

6.2 Asbestos Removal Control Plan (ARCP)

Licensed asbestos removal contractor (Class A), (Contractor), to prepare an asbestos removal control plan (ARCP) to be submitted to SafeWork NSW with RAP.

The plan shall include:

- contingencies to respond to site incidents and obviate potential effects of the works on the surrounding environment and community; and
- A schedule for the planned remedial works.

6.3 Site Contacts

The Contactor shall include the names and numbers of appropriate contact personnel for the works. These may include but not necessarily be limited to representatives of the following entities:

- Contractor;
 - o Including nominated Site controller;
- Site Owner;
- Council;
- SafeWork NSW;
- The receiving facility for waste;
- Other parties providing support to the remedial works (as required).
 - o Service locator;
 - o Licensed asbestos assessor;
 - o Waste removal contractor.

6.4 Workplace Health and Safety

The Contractor shall prepare workplace health and safety documentation in accordance with the requirements of the NSW Work Health and Safety (WHS) Act, 2011 (**Ref.10**), prior to works commencing. The documentation shall include provisions for induction of all Contractor staff, subcontractors and site visitors into the WHS requirements for the Site.

Subcontractors shall be required to prepare task specific Safe Work Method Statements (SWMS), in addition to adhering to the contractors WHS documentation.

The WHS documentation shall also include details of ablution facilities intended to be used during the remedial works.

6.5 Notifications

Before commencement of remedial works, occupants of premises adjoining the Site are to be informed that asbestos removal work is to be carried out and when the works will commence.

6.6 Site Controls

The Contractor shall establish site controls prior to commencing remedial works. These should include, but not necessarily be limited to:

- Fencing (with exclusion zones);
- Warning signs;
- Designated points of entry / egress;
- Dust suppression;
- Decontamination zone, facilities (in accordance with Code of Practice for How to Safely Remove Asbestos (SWA;2016), (Ref.15);
- Designated waste collection point;
- A supply of appropriate personal protective equipment for workers;
- Evacuation point/s;
- Stormwater and sediment/erosion controls.

6.7 Utilities

As the remedial works require excavation, enquires should be made by the Contractor to Dial Before You Dig (DBYD), and if services are potentially present then an accredited service locator engaged to assist in locating any services which have potential to be encountered during the works.

7. Site Management Plan

This section provides detail on the controls required to be implemented during remediation of the Site.

7.1 Hours of Operation

As the Site is a residential property located adjacent similar, works should be timed to minimise disturbance to neighbours. To achieve this work hours during remediation of the Site should be in accordance with the NSW DECC Interim construction Noise Guideline, 2009 (Ref.16) and be limited to:

- Monday to Friday 7 am to 6 pm
- Saturday 8 am to 1 pm
- No work on Sundays or public holidays

7.2 Stormwater and Erosion Management

The remedial works require that the existing site surface be removed exposing bare soil. To protect the environment the Contractor shall establish and maintain such controls to:

- divert clean stormwater away from the remediation zone, and
- minimise potential for sediment and runoff from the remediation zone from entering local stormwater collection points.

7.3 Dust Control Plan

The Contractor shall prepare and implement a Dust Control Plan. The plan shall include but not necessarily be limited to:

- Dust suppression methodologies to be employed;
- Monitoring points to be established during the remedial works;
 - o Number and location;
 - Monitoring to be carried out by a SafeWorks NSW LAA.
 - Based on the site setting and proposed remedial zone, it is considered that a minimum of four (4) points would need to be monitored during the works. These monitoring points should be:
 - o The boundaries of the neighbouring properties (on both sides);
 - o The front of the residence on the Site;
 - o The front boundary of the Site.
 - More monitoring points could be established on an as needs basis
- Methods for integration with the decontamination controls established for the Site;
- Acceptability Limits for dust generation during the works; and
 - o Contingency and if necessary, evacuation procedures should acceptability limits be exceeded.

7.4 Waste Management

The Contractor will need to produce a waste management plan for the remedial works detailing:

- The types of waste to be generated;
- The volumes of each waste type expected;
- Transport and waste tracking templates to be used;
- The nominated receival facility and confirmation that the facilities licencing allows receipt of the waste generated from the Site;
- Other details pertinent to the generation, management and disposal of waste/s generated during remedial works at the Site, such as but not limited to;
 - o Staging procedures for excavated material requiring short term storage on Site;
 - o Protection of the remainder of the Site from generated wastes;
 - o Protection / handling of the waste/s during inclement weather.

7.5 Traffic Control Plan

The Contractor will need to prepare a traffic control plan for the period of the remedial works, to manage:

- Parking of personnel near the Site;
 - o Including floats for machinery;
- Heavy vehicle movements into and out of the Site;
- Movement of other plant on and around the site;
 - o Details of plant required;
- Pedestrian detours if required by the establishment of exclusion zones during the work;
- Controls to be implemented should full or partial closure of Edith Street be required at any point during the remedial works.

7.6 Other Controls

Depending on the final form and duration of the remedial works, additional controls may need to be implemented by the Contractor in order to successfully achieve the remediation goals for the Site.

These may include, but not necessarily be limited to:

- Community relations;
- Staged progress reports;
- Noise or Odour Management; and
- Long term management strategies.

6. Conclusions

This RAP has been prepared based on a combination of regulatory, economic, environmental and human health considerations. Based on the matters considered and the findings of the most recent site assessment (Ref.1) it is considered that, if the recommendations of this RAP are followed, the Site can be safely remediated to a state which is commercially viable and suitable for the proposed use in accordance with the current DA.

7. Limitations

Observations and sampling/test results presented in the Consolidated P2ESA (EHO JN869-P2ESA-RN04645, 19 March 2020), (Ref.1) were indicative of the conditions present at the time of our investigation are a snapshot of conditions as they were at the time of the investigation, and may not be representative of past or future conditions.

Our report is limited in to the agreed scope of works outlined in our fee proposal.

The report has been prepared for the benefit of the Client and no other party. EHO Consulting assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of EHO Consulting or for any loss or damage suffered by any other party in relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters.

EHO Consulting will not be liable to update or revise the report to take into account any events, emergent circumstances or facts occurring or becoming apparent after the date of the report.

The scope of services did not include any assessment of the title to nor ownership of the properties, buildings and structures referred to in the report, nor the application or interpretation of laws in the jurisdiction in which those properties, buildings and structures are located.

8. References

1. EHO Consulting Pty Ltd; Consolidated Phase 2 Environmental Site Assessment – 6 Edith Street, Kingswood NSW 2747: JN869-P2ESA-RN04642, 14 March 2020.
2. NSW EPA (Nov 2014); Waste Classification Guidelines – Part 1: Classifying waste.
3. EHO Consulting Pty Ltd: Phase 2 Environmental Site Assessment – 6 Edith Street, Kingswood NSW 2747 JN00869-P2ESA-RN02035_Rev0; 28 September 2019.
4. EHO Consulting Pty Ltd: Expanded Phase 2 Environmental Site Assessment – 6 Edith Street, Kingswood NSW JN00869-P2ESA-RN03358, 18 February 2020.
5. NSW EPA (2020), Contaminated Land Guidelines - Guidelines for consultants Reporting on contaminated land.
6. Penrith Local Environment Plan 2010 – Amendment No.4.
7. CSIRO; Atlas of Australian Acid Sulfate Soil (Table 1.3.2), Cq(p4): ASS in inland lakes, waterways, wetlands and riparian zones.
8. NSW Protection of the Environment operations Act, 1997 / No.156;
9. NEPC National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013) – Schedule B1; Guideline on Investigation Levels for Soil and Groundwater.
10. NSW Work, Health and Safety Act 2011 No 10.
11. NSW Work, Health and Safety Regulation 2017.
12. NSW State Environmental Planning Policy No 55 – Remediation of Land (SEPP 55).
13. Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia 2009.
14. Australian Standard 4482-2005 Guide to the investigation and sampling of sites with potentially contaminated soil.
15. Safe Work Australia (October 2018); How to safely remove asbestos – Code of Practice.
16. NSW DECC (July 2009); Interim Construction Noise Guideline.

Appendix A – Figures

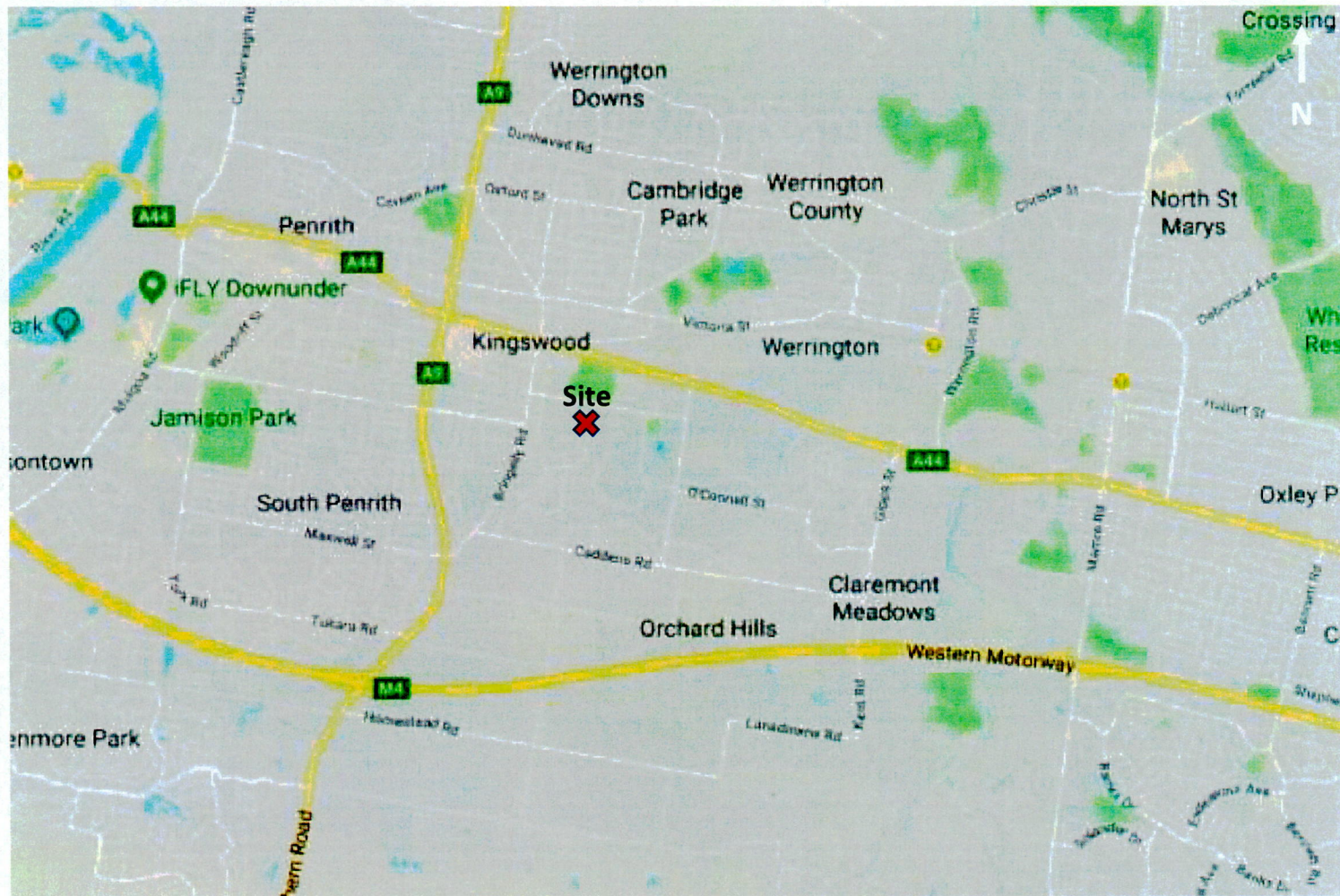


FIGURE 1 – SITE LOCATION
6 EDITH STREET, KINGSWOOD NSW 2747



FIGURE 2 – SITE LAYOUT
6 EDITH STREET, KINGSWOOD NSW 2747



Area of Observed Fill

FIGURE 3 – AREAS OF OBSERVED FILL
6 EDITH STREET, KINGSWOOD NSW 2747

FIGURE 3 - POTENTIAL REMEDIATION AREA
6 EDITH STREET, KINGSWOOD NSW 2747

Potential Remediation Area



Appendix B – Waste Classification Summary

Waste Classification Summary

Assessment Criteria		Analyte Name	Units	Benzene	Toluene	Ethylbenzene	Total Xylenes	TRH C8-C9	TRH C10-C16 Total	Benzofluoranthene	Total PAH (NEPM/MHO 16)	Phenol	2-methyl phenol (o-cresol)	2,4-dichlorophenol	Hexachlorobenzene (HCB)	Alpha Endosulfan	Beta Endosulfan	Total CLP/OC Pesticides	Chlorpyrifos (Chlorpyrifos Ethyl)	Total OP Pesticides	Total PCBs (Arochlors)	Arsenic, As	Cadmium, Cd	Chromium, Cr	Lead, Pb	Nickel, Ni	Mercury					
1	General Solid Waste - CT1 (mg/kg)		10	288	600	1 000	650	10 000	0.8	200	288	4 000	4 000	4 000	200	2 000	30	30	50	4	250	50	100	20	100	100	40	4				
2	Restricted Solid Waste - CT2 (mg/kg)		40	1 152	2 400	4 000	2 600	40 000	3.2	800	1 152	16 000	16 000	16 000	800	8 000	120	120	50	16	1 000	50	400	80	400	400	160	16				
Sample Name	Sample ID	Sample Date	Matrix	Reporting Limit	0.1	0.1	0.1	0.3	20	110	0.1	0.8	0.5	0.5	1	1.5	0.5	0.1	0.2	0.2	1	0.2	1.7	1	1	0.3	0.5	1	0.5	0.05		
SE197563.001	S1	10-9-2019	Soil	Result	<0.1	<0.1	<0.1	<0.3	<20	<110	0.1	<0.8	<0.5	<0.5	<1	<1.5	<0.5	<0.1	<0.2	<0.2	<1	<0.2	<1.7	<1	8	0.4	19	120	13	0.38		
SE197563.002	S2	10-9-2019	Soil	Result	<0.1	<0.1	<0.1	<0.3	<20	120	0.4	3.0	<0.5	<0.5	<1	<1.5	<0.5	<0.1	<0.2	<0.2	<1	<0.2	<1.7	<1	7	<0.3	16	96	10	0.21		
SE197563.003	S3	10-9-2019	Soil	Result	<0.1	<0.1	<0.1	<0.3	<20	<110	<0.1	<0.8	<0.5	<0.5	<1	<1.5	<0.5	<0.1	<0.2	<0.2	<1	<0.2	<1.7	<1	7	<0.3	16	89	10	0.24		
Count	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Maximum	<0.1	<0.1	<0.1	<0.3	<20	120	0.4	3.0	<0.5	<0.5	<1	<1.5	<0.5	<0.1	<0.2	<0.2	<1	<0.2	<1.7	<1	8	0.4	19	120	13	0.38						
Minimum	-	-	-	-	-	<110	<0.1	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95% UCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* NSW EPA Waste Classification Guidelines Part 1: Classifying Waste, Nov 2014	
1	Table 1: CT1 values without TCLP test Maximum Specific Contaminant Concentration (SCC) values - General Solid Waste - CT1 (mg/kg)
2	Table 1: CT1 values without TCLP test Maximum Specific Contaminant Concentration (SCC) values - General Solid Waste - CT1 (mg/kg)