Job Ref: 9163 22 May 2020

Chief Executive Officer Shire of Serpentine Jarrahdale 6 Paterson Street MUNDIJONG WA 6123

Attention: Ashwin Nair

Dear Sir/Madam

Application for Temporary Works Approval Lot 102 (No. 766) King Road, Oldbury

Rowe Group acts on behalf of Kingroad Holding, the landowner of Lot 102 (No. 766) King Road, Oldbury (the 'subject land'). Please find enclosed the following documents in support of the Application seeking Temporary Works Approval lodged with the Shire of Serpentine Jarrahdale on 28 February 2020:

- Transport Impact Statement
- Remediation Management Plan

Further background and justification in support of this application is provided below for your consideration.

TRANSPORT IMPACT STATEMENT

The Transport Impact Statement has been prepared by Donald Veal Consultants for the temporary works proposed at the site and confirms no traffic or safety issues associated with the proposal.

The operation to remove the waste material from the site will have minimal impact on traffic on the adjacent road network. The existing site access is able to accommodate the turning movements of the intended trucks and peak period trip generation is low.

REMEDIATION MANAGEMENT PLAN

The Remediation Management Plan has been prepared by 360 Environmental to present the remediation management and monitoring measures for noise, dust and visual amenity aspects with the potential to adversely affect human health to support the temporary works development application.



Level 3 369 Newcastle Street Northbridge 6003 Western Australia

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We trust that the information contained within this correspondence is sufficient to allow the Shire of Serpentine Jarrahdale to favourably determine the proposal. Should you require any further information or clarification in relation to this matter, please contact the undersigned or Rod Dixon on 9221 1991.

Yours faithfully,

Manpla

Ella Compton Rowe Group



Attachment One

Transport Impact Statement



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 6 Burgess St Midland WA 6056

 F: +61 8 9274 4854
 PO Box 5060 Midland WA 6056

 ABN 13 101 084 940
 Admin@dvcworld.com

Rowe Group Level 3, 369 Newcastle Street Northbridge WA 6003

DVC Z745 TIA Letter Lot 102 King Road

15th May 2020

Attention: Ella Compton, Graduate Planner

Via Email: <u>Ella.Compton@rowegroup.com.au</u>

Cc: Mr Rod Dixon, Director, Via Email: Rod.Dixon@rowegroup.com.au

Dear Ella,

Transport Impact of Waste Material Removal from Lot 102, King Road, Oldbury

Background

Waste material of unknown origin(s) has been unlawfully deposited at 766 (Lot 102) King Road, Oldbury. The Shire of Serpentine Jarrahdale now requires the submission of a temporary works development approval, for the purposes of site remediation. This will need to address a number of issues, including a brief assessment of any traffic impacts.

Donald Veal Consultants (DVC) has therefore been engaged by Rowe Group Pty Ltd, to provide a simple traffic impact assessment letter with regard to removal of this waste material, commenting on access to and from the site using the existing crossover.

It is understood that as much of the waste as possible will be processed on site, however this is still likely to include some form of transporting material to a facility off site including asbestos removal.

Traffic Data

King Road is designated as a Regional Distributor Road with Main Road's Functional Road Hierarchy. It is also designated a Restricted Access Vehicle (RAV) route, which is shown on MRWA's RAV mapping tool as being rated for up to RAV4 (<27.5m) vehicles.

No traffic flow data was available for King Road, however MRWA's Traffic Map indicates AAWT flows on Mundijong Road, just east of the King Road intersection of just over 5,000 vpd in 2017/18. Flows on King Road would be expected to be significantly lower than this figure.

In terms of safety, MRWA's CARS database shows that there have been only 4 recorded crashes at the King Road / Mundijong Road intersection in the last 5 years (2015-2019).

Volume of Waste to be Removed

The amount of waste accumulated on the site, and needing to be dealt with, is estimated to be around 70 - 80,000 m³. Of this, it is conservatively estimated that at least 60% can be treated on site, and retained. However, in the worst case scenario, the remaining 40%, or up to 32,000 m³ may need to be removed from site by trucks.

Trip Generation

Information provided by Delta Group indicates that any material needing to be removed would be trucked off-site using 'semi-tipper' trucks, each with a capacity of 18-20 m³. In the worst case scenario identified above, this could therefore equate to around 1,600 truckloads.

Assuming the removal process is to be carried out over a period of around 75-100 working days, this would produce an average of approximately 16 to 24 trucks per day visiting the site. It is expected that these trips would be evenly spread throughout the day, over a ten hour period. Thus, there would be a maximum of around 2 to 3 trucks entering and leaving the site during each peak hour period.

In addition, it is estimated that commuter trips for on-site staff would amount to around 3 to 4 light vehicles arriving in the AM peak period, and leaving in the PM peak period.

Traffic Impact

The existing access from Lot 102 onto King Road is sealed and around 8.5m in width. It is designed with radii that would readily accommodate the turning movements of the prescribed trucks, which are deemed 'as-of-right' vehicles.

Based on the above figures, the overall number of vehicle trips expected to be generated by the site during the peak hour periods is conservatively estimated to be between 7 and 10. Off peak, truck movements to and from the site would generate around 4 to 6 trips per hour.

The impact of this traffic on the adjacent road network is therefore considered low.

Conclusion

From the above analysis it can be seen that the operation to remove the waste material from the site will have minimal impact on traffic on the adjacent road network. The existing site access is able to accommodate the turning movements of the intended trucks, and peak period trip generation is low.

We therefore find no traffic or safety issues with the proposal.

If you have any queries in regard to this letter or require further clarification, please contact me at your earliest convenience on 9274 7076.

Yours sincerely,

Donald Veal Director



Attachment Two

Remediation Management Plan

10.1.5 - attachment 2



Our Ref: 3776AA_Rev2

22 May 2020

Ken Ming Manager Kingroad Holdings Pty Ltd 88 Smiths Road Templestowe VIC 3106 Via Email: k.ming94@gmail.com

Dear Ken,

Lot 102 King Road Oldbury Remediation Management Plan

1 Introduction

360 Environmental Pty Ltd (360 Environmental) has been engaged by Kingroad Holdings Pty Ltd (Kingroad Holding) to conduct a site inspection and develop a plan for the remediation of approximately 50,000 m³ of stockpiled uncontrolled fill located at Lot 102 King Road, Oldbury, Western Australia (herein referred to as the 'site).

1.1 Project Appreciation

It is understood that approximately 50,000 m³ of waste material of unknown origin(s) was unlawfully deposited on the site since 2016. Following inspection by officers of the Shire of Serpentine-Jarrahdale (the Shire) and ongoing review, Kingroad Holding engaged Enpoint to assess the waste material and collect soil samples. The Enpoint assessment found that the waste material comprises mainly timber, brick, concrete and plastics as well as asbestos containing materials (ACM).

The Shire considered the Enpoint report at its Ordinary Council Meeting which took place on 18 November 2019. Council resolved to require submission of a "temporary works development approval by 1 March 2020, for the purposes of site remediation". Site remediation works were determined at this time to comprise the segregation of stockpiles with recyclable and nonreusable materials removed, and brick material crushed for onsite reuse.

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1.2 Project Objective

The overarching objective of this Remediation Management Plan is to present the remediation management methodology and outline management and monitoring measures for noise, dust and visual amenity aspects with the potential to adversely affect human health to support the temporary works development approval documentation.

1.3 Scope of works

In order to meet the above-mentioned objective the following scope of works has been undertaken:

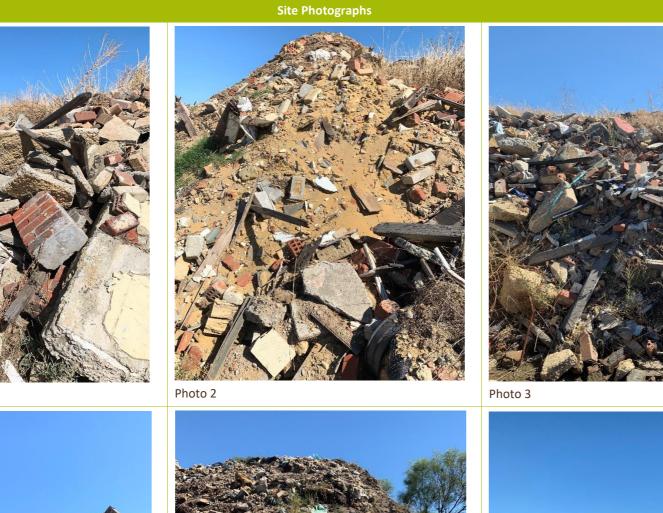
- A site visit by a contaminated site practitioner and occupational hygienist.
- Development of an abbreviated remediation management plan that defines the following:
 - Environmental processes pertaining to the methodology for the onsite segregation, reuse and/or removal of fill material from site
 - Methodology for removal and validation of top 100 mm of soil below the stockpiles
 - Post-remediation soil validation programme (including emu bob for ACM and soil sampling for contaminants of concern)
 - o Development of a post-remediation groundwater investigation programme
- Development of a basic dust, noise and visual impact management plan for the remediation works.

2 Site Inspection

On 24th March 2020 a contaminated site practitioner and occupational hygienist attended the site to conduct an inspection. The inspection involved visual assessment of the extent and composition of stockpiled material at the site. A detailed summary of site observations is presented in **Table 1** with the following key observations noted below:

- Uncontrolled fill material has been stockpiled on the north-east portion of the site
- There are two large (main) stockpiles up to approximately 8 metres in height in some locations which appear to be comprised of mostly building rubble mixed with some sand (refer to Photos 1-3)
- Other stockpiles located to the west and south of the main stockpiles include:
 - Stockpiles of sorted building rubble including concrete and timber (refer to Photo 5)
 - Stockpiles of mulch with some debris mostly comprised plastic, timber, brick and concrete (refer to Photos 5, 7-9)
 - Stockpiles of sand with some debris mostly comprised plastic, timber, brick and concrete (refer to Photo 6).

Table 1: Summary of Site Observations



The two large stockpiles appear to comprise mostly builder's rubble including:

- Concrete Bricks
 - Plastic items
 - Plaster board
- Wood.

•

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Photo 1

Photo 4



Photo 5



- stockpiles
- waste.
- ٠



Description

• Separate stockpiles of concrete and timber are present to the south of the larger two

• One stockpile of mulch placed to the west of the two large stockpiles appears to have been mixed with plastics and putrescible

Several sand stockpiles with inclusions of some bricks, plasterboard, timber and concrete have been placed to the south the two large stockpiles

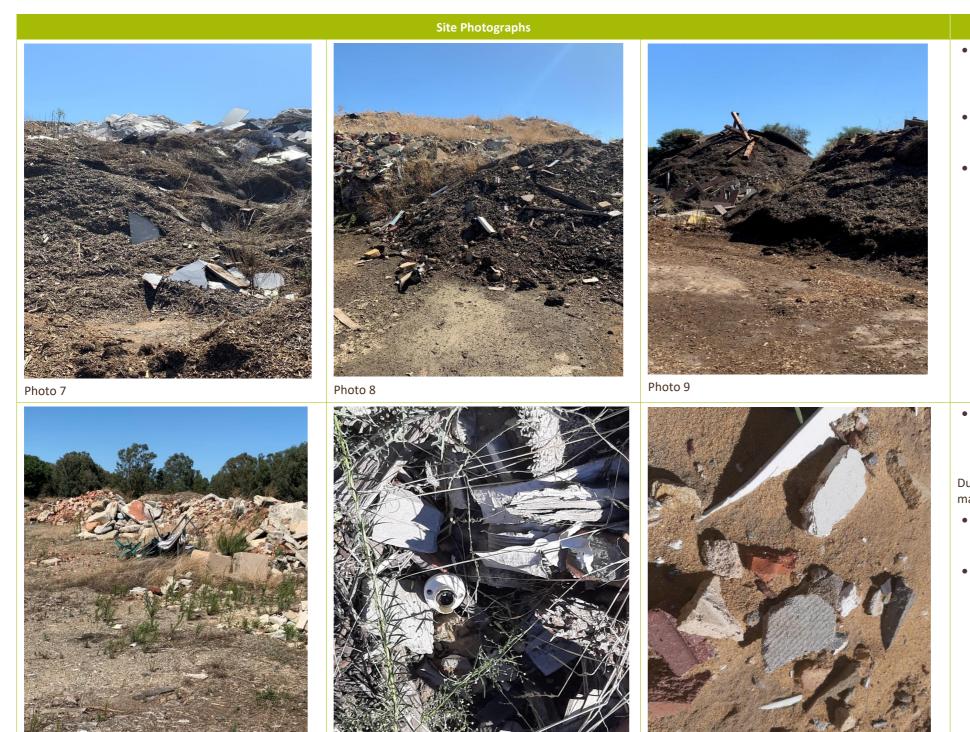


Photo 10

Photo 11

Photo 12

- biphenyls (PCBs)
- •

10.1.5 - attachme

Remediation Management Plan Lot 102 King Road Oldbury Kingroad Holding

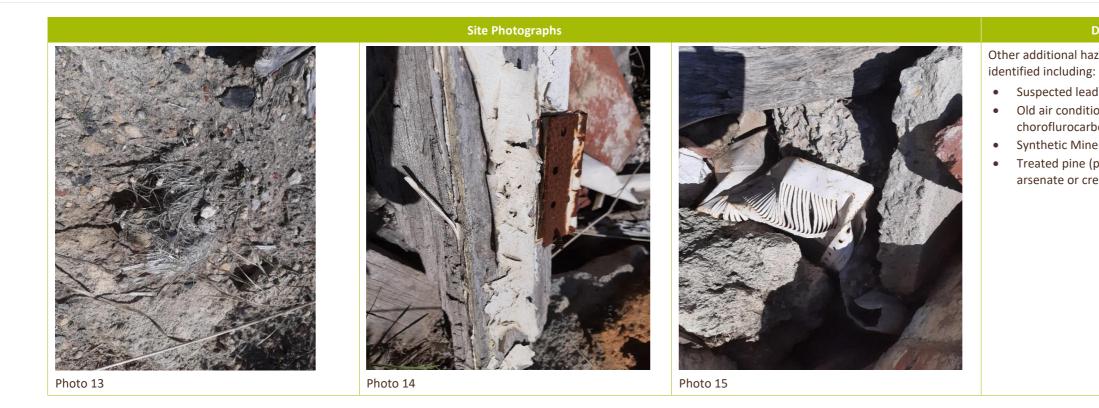


Description

- Stockpiles of mulch ranging from 2 4 metres in height are present at the site placed directly to the south and east and of the two large stockpiles
 - Debris is present on the surface of some of the stockpiles including timber,
 - plasterboard, concrete fragments
 - Several of the mulch stockpiles potentially
 - have debris entrained throughout.

• Further west of the uncontrolled fill stockpiles there are a number of other smaller stockpiles which appear to comprise of building rubble.

- During the site inspection a number of hazardous materials were identified including:
- numerous electrical fittings including old Fluorescent lights (potential polychlorinated
 - ACM (primarily non-friable asbestos fibre cement, however friable asbestos items may be present and cannot be ruled out).



10.1.5 - attachmer Remediation Management Plan Lot 102 King Road Oldbury Kingroad Holding



Description

- Other additional hazardous materials were
- Suspected lead based paints
- Old air conditioning units (potential
 - choroflurocarbons (CFCs)
- Synthetic Mineral Fibre
 - Treated pine (potential copper-chromearsenate or cresols).



3 Remediation Management Plan

As the proposed remediation works will involve the segregation of waste materials from the stockpiles into material that is considered appropriate for beneficial on site re-use (i.e. crushed brick material), recyclable (i.e. plastic, metal, wood, cardboard) and non-reusable wastes (i.e. putrescible, asbestos containing material and other hazardous material), a staged approach to remediation will be required. The remediation management plan presented in **Table 2** below outlines the key steps to complete remediation at the site.

Table 2: Remediation Management Plan

Tasks	Description	Remedial Action Plan	Responsibility
1	Site access	The entrance to the site is located on the eastern boundary of the site via King Road.	Nominated Excavator
		A road has been established in the centre of the site running east to west.	Contractor
		All site traffic (vehicles and plant) involved in the remediation works are to use the entrance and road to access and egress the site. This will limit the potential for crushing hazardous materials (asbestos) and cross contaminating the site.	
2	Site set up	Establish designated area to set up mechanical screener.	Nominated Excavator
		Establish designated areas for temporary stockpiling of different materials.	Contractor (4-6 staff)
		Establish a turn-around point for site traffic.	360 Environmental
		Implement dust, noise and visual impact actions (refer to Section 4 below). The proposed management actions will need to take into considered the operational landscape supplies located opposite the stockpile of waste.	
3	Community Consultation	Develop and provide neighbours within a 1 km radius with a letter outline the proposed remediation works to be undertaken at the site. The letter will include the following:	Client
		Type of works being undertaken	360 Environmental
		Timing and duration of works	
		Contact details in the event there are any queries or complaints	
		Set up complaints register to log any complaints received and actions taken onsite in response to any complaints.	
4	Stockpile Remediation	Stockpiles identified as mulch only will removed and stockpiled in a separate area for future re-use.	Nominated Excavator Contractor
		Stockpiles identified as mostly mulch or sand with some debris will require removal to allow access to the larger stockpile. These stockpiles will be sampled for waste classification purposes to allow for direct disposal to landfill.	360 Environmental
		Remediation works for stockpiles comprised mostly of building rubble mixed with a small amount of sand will be conducted as follows:	
		• Visually inspect surface area for asbestos fragments prior to disturbance with machinery. In the event ACM is identified fragments will be double bagged for disposal	
		purposes in accordance with an abbreviated Asbestos Management Plan (AMP)	
		Load material onto a mechanical screen which will separate material >65 mm for sorting purposes	
		 Separate material >65 mm into brick/concrete for crushing and beneficial reuse onsite and other material into recyclable, non-recyclable and potentially hazardous material stockpiles for disposal offsite 	
		 The remainder of the soil <65 mm will be disposed of to landfill as type 1 special waste 	
		Following removal and remediation of stockpiles from the site, the top 100 mm of the surface soils within the stockpile footprints will be scraped off and placed with the	
		sorted <65 mm soil material for disposal as type 1 special waste.	
		See Task 6 and 7 for sampling and analysis requirements for waste classification and disposal to landfill.	
5	Temporary stockpiling of	Stockpiles will be segregated into recyclable materials, potentially hazardous non-recyclable materials and putrescible materials.	Nominated Excavator
	impacted soils prior to offsite	All identified potential ACM should be managed in accordance with the abbreviated AMP	Contractor
	disposal	 If direct disposal to landfill of material <65 mm is not undertaken soils may require stockpiling onsite. 	360 Environmental
		If stockpiles remain onsite, they will be covered with an impermeable plastic and adequately bunded to minimise runoff.	
Constraints and	d Contingency Measures		
6	Residual impacts from stockpiles are present in soil beneath removed stockpiles	In the event visual impacts (i.e. staining) in surface soils are observed these soils will be excavated further and stockpiled for sampling, analysis and waste classification and disposal to landfill.	360 Environmental
		Following removal of stockpiles, validation sampling of surface soils will be undertaken progressively to assess the suitability of the site for ongoing use as a commercial/industrial premises.	
Fieldwork Plan	1		
7	Landfill Classification scope of work	Sampling of stockpiled material for waste classification purposes will be conducted in accordance with the Department of Water and Environmental Regulation (DWER) Landfill Waste Classification and Waste Definitions 1996 (as amended 2019) with numbers of samples required per volume (m ³) presented in Table 3 below.	360 Environmental
		It is currently understood there is approximately 50,000 m ³ of stockpiled material onsite however the composition of the different stockpiles varies (particularly the mulch material to be disposed of offsite) and may require separate characterisation for disposal purposes. It is acknowledged that post sorting the volume of material for disposal will likely reduce., however at this preliminary stage an allowance for 40 samples to be collected for laboratory analysis is proposed to inform waste classification and disposal to landfill. Given the origin of waste is not known the full suite of contaminants of potential concern (COPCs) as listed in the DWER (2019) Landfill Waste Classification and Waste Definitions as follows:	



Tasks	Description	Remedial Action Plan	Responsibility
		 Metals (aluminium, arsenic, barium, beryllium, boron, cadmium, cobalt, copper, hexavalent chromium, mercury, manganese, molybdenum, nickel, lead, selenium, silver, vanadium and zinc) Cyanide Fluoride Benzene, toluene, ethylbenzene and xylene (BTEX) Styrene Total recoverable hydrocarbons (TRH) Polynuclear aromatic hydrocarbons (PAHs) Phenolic compounds Cresols 2,4 Dichlorophenoxyacetic acid Polychlorinated biphenyls (PCBs) Organochlorine pesticides (OCPs) Asbestos in soil. 	
8	Validation of sites soils for suitability for ongoing use as a commercial/industrial premise	Following removal of stockpiles and 100 mm surface scrape of underlying surface soils, a number of validation samples will be collected from the stockpile footprint for laboratory analysis. This area is approximately 12, 000 m ² and will require 25 samples to be collected and analysed for COPCs identified following review of stockpile sampling results.	360 Environmental
9	Nominated Assessment Criteria	 The nominated assessment criteria adopted to assess soils for disposal to landfill are: DWER (2019) Landfill Waste Classification and Waste Definitions 1996 (as amended 2019) The nominated soil health and ecological investigation criteria adopted to validate sites soils are suitable for ongoing use as for the remediation will be selected from the following documents: National Environmental Protection Council (NEPC) (1996) National Environment Protection (Assessment of Site Contamination) Amendment Measure No.1, revised May 2013 Department of Environment Regulation (DER) (now DWER) (2014) Assessment and Management of Contaminated Site Guidelines (AMCS Guidelines) 	360 Environmental
10	Groundwater Investigation Program	Department of Health (2009) Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia Following remediation and validation works a groundwater investigation will be undertaken involving the installation of up to three groundwater monitoring wells at the site. The purpose of the investigation will be to ascertain if the storage of fill material at the site has caused impacts to groundwater beneath the site. The actual number of monitoring wells as well as the potential contaminants of concern will be determined during remediation works. Groundwater monitoring wells will be installed once remediation works onsite have been completed to ensure wells are not damaged by machinery.	360 Environmental
11	Reporting	Reporting of soil and groundwater results will be presented in a factual letter report.	360 Environmental





Number of Samples

4

6

8

11

15

18

20

24

24 plus 4 for each additional 10,000 m3

4	Remetiation Management
The	following sections outline management
rem	ediation works. These have been develope
	 Occupational Safety and Health Regula

Table 3: DWER Number of Samples Required per Volume (m³)

Volume

100 to 200

200 to 500

500 to 1,000

1,000 to 2,000

2,000 to 3,000

3,000 to 4,000

4,000 to 5,000

5,000 to 10,000

> 10,000

Source: Department of Water and Environmental Regulation (DWER) Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)

Remediation Management Actions

actions that will be implemented during the ed in accordance with the following legislation:

- ations 1996 (WA)
- Contaminated Sites Act 2003
- Environmental Protection Act 1986, and Regulations 1987 (WA) ۲
- Environmental Protection (Noise) Regulations 1997 (WA). •

Note more detailed management actions will be required to be developed prior to project commencement which take into consideration the operational landscape supply business also located on the site.

4.1 **Asbestos and Dust Management**

The site is located within a rural area with the nearest residential neighbours located approximately 240 m south and 200 m east of the site. Remediation works conducted at the site will comply with Statutory Regulations of governmental departments having jurisdiction over the site, in respect to the discharge of atmospheric dust and other contaminants.

The following dust control methods may be utilised during remediation:

- Water carts to be available at all times to carry out dust suppression activities to control and prevent excessive dust from earthworks operation
- No timber or other debris is to be burnt



- Erecting and maintenance of fencing with dust control mesh, if required. Noting along the north, south and eastern boundaries berms have been formed using soils which are approximately 2 m in height, grassed with trees planted on top
- Enforcement of speed limits on unsealed roads
- Stockpiling only within designated areas
- Prevent soil deposition offsite as much as possible and keeping roads adjacent to site clean
- Cessation of all work when wind speed exceeds 25km/hour or conditions are such that preventative measures are unable to contain dust and wind-blown materials
- Trucks carrying soils or other dusty materials are to be fitted with high tailgates and are not overloaded. At least 75mm of freeboard must be maintained or loads must be covered with a tarpaulin to prevent the release of dust outside the site
- Trucks carrying soils to or from the site are to be covered or wet down to prevent windblown dust
- Semi tippers carrying type 1 special waste will be lined with soil damped down and the liner wrapped tightly over the top of the soil for road transport to the landfill in line with Department of Health guidelines
- Installation of airborne asbestos fibre monitoring pumps at the site boundaries and use of asbestos fibre monitoring personal protection pumps
- Installation of automatic dust monitoring equipment providing an alert link by mobile phone to the site foreman or other responsible person, where required.

4.2 Noise and Vibration

The first priority is to eliminate the noise and vibration hazards through engineering controls. In the case of machinery and equipment where it is not technically feasible to make sufficient reduction in levels by engineering methods, noise exposure must be reduced by isolation of the noise hazard from employees.

To minimise the impact of noise and vibration associated with remediation activities the following principles will be followed:

- No machinery, work or delivery of plant or materials is to be undertaken outside of "normal working hours" - 7am to 7pm Monday to Saturday unless specific approvals are obtained
- Equipment is maintained on a regular basis to as near new condition as far as practicable and in particular any factory fitted noise controls are in good working order (e.g. exhausts silencers and complies with occupational health and safety standards), no servicing of machines outside normal working hours
- Establish speed limits within the sensitive zones



- Limit the use of engine exhaust brakes.
- Erection of temporary noise barriers if required.

4.3 Public and Visual Amenity

The site is located within a rural area with the nearest residential neighbours located approximately 240 m south and 200 m west of the site. The contractor will implement strategies to reduce the public impact and visual amenity for the duration of the project including:

- Maintaining existing vegetation on site boundaries to visually screen remediation activities
- Traffic volumes to be managed through a Traffic Management Plan
- All vehicles/machinery/plant will be regularly inspected and cleaned to reduce unsightly mud on the road and surrounding areas
- All vehicles/machinery/plant will be regularly maintained to reduce potential for excess exhaust emissions
- Works will be staged to manage the duration of unsightly works, if required
- Works outside daylight hours will be minimised to reduce the potential for light spill/glare to adjacent residents and traffic, if required.



We trust this meets your requirements at this time. Should you have any questions or require further action please do not hesitate to contact Richelle Bunbury or the undersigned on (08) 9388 8360. We look forward to hearing from you.

For and on behalf of 360 Environmental Pty Ltd

lesteach formet

Chris Donnetti – Principal Environmental Consultant



5 Limitations

This report is produced strictly in accordance with the scope of services set out in the contract or otherwise agreed in accordance with the contract. 360 Environmental makes no representations or warranties in relation to the nature and quality of soil and water other than the visual observation and analytical data in this report.

In the preparation of this report, 360 Environmental has relied upon documents, information, data and analyses ("client's information") provided by the client and other individuals and entities. In most cases where client's information has been relied upon, such reliance has been indicated in this report. Unless expressly set out in this report, 360 Environmental has not verified that the client's information is accurate, exhaustive or current and the validity and accuracy of any aspect of the report including, or based upon, any part of the client's information is contingent upon the accuracy, exhaustiveness and currency of the client's information. 360 Environmental shall not be liable to the client or any other person in connection with any invalid or inaccurate aspect of this report where that invalidity or inaccuracy arose because the client's information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to 360 Environmental.

Aspects of this report, including the opinions, conclusions and recommendations it contains, are based on the results of the investigation, sampling and testing set out in the contract and otherwise in accordance with normal practices and standards. The investigation, sampling and testing are designed to produce results that represent a reasonable interpretation of the general conditions of the site that is the subject of this report. However, due to the characteristics of the site, including natural variations in site conditions, the results of the investigation, sampling and testing may not accurately represent the actual state of the whole site at all points.

It is important to recognise that site conditions, including the extent and concentration of contaminants, can change with time. This is particularly relevant if this report, including the data, opinions, conclusions and recommendations it contains, are to be used a considerable time after it was prepared. In these circumstances, further investigation of the site may be necessary.

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