



Statement No.

MINISTER FOR THE ENVIRONMENT AND HERITAGE

000612

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**REMEDICATION OF THE MIDLAND RAILWAY WORKSHOPS SITE
AREAS B, C AND D, MIDLAND, CITY OF SWAN**

Proposal: The remediation of 15.5 hectares (Areas B, C and D) of the 70 hectare Midland Railway Workshops site located immediately south of the Midland town centre in Midland, as documented in schedule 1 of this statement.

Proponent: Midland Redevelopment Authority

Proponent Address: Railway Institute Building
Midland Railway Workshop Site
Montreal Road East
Midland WA 6056

Assessment Number: 1349

Report of the Environmental Protection Authority: Bulletin 1057

The proposal referred to above may be implemented subject to the following conditions and procedures:

Procedural conditions

1 Implementation and Changes

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.

1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

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- 1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

2 Proponent Commitments

- 2-1 The proponent shall implement the consolidated environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of the conditions in this statement.

3 Proponent Nomination and Contact Details

- 3-1 The proponent for the time being nominated by the Minister for the Environment and Heritage under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment and Heritage has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.
- 3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.
- 3-3 The nominated proponent shall notify the Department of Environmental Protection of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

- 4-1 The proponent shall provide evidence to the Minister for the Environment and Heritage within five years of the date of this statement that the proposal has been substantially commenced or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment and Heritage will determine any dispute as to whether the proposal has been substantially commenced.

- 4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment and Heritage, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

- the environmental factors of the proposal have not changed significantly;
- new, significant environmental issues have not arisen; and
- all relevant government authorities have been consulted.

Note: The Minister for the Environment and Heritage may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

Environmental conditions

5 Compliance Audit

5-1 The proponent shall prepare an audit program in consultation with and submit compliance reports to the Department of Environmental Protection which address:

- the implementation of the proposal as defined in schedule 1 of this statement;
- evidence of compliance with the conditions and commitments; and
- the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environmental Protection is empowered to audit the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

Usually, the Department of Environmental Protection prepares an audit table which can be utilised by the proponent, if required, to prepare an audit program to ensure that the proposal is implemented as required. The Chief Executive Officer is responsible for the preparation of written advice to the proponent, which is signed off by either the Minister or, under an endorsed condition clearance process, a delegate within the Environmental Protection Authority or the Department of Environmental Protection that the requirements have been met.

6 On-site Containment of Waste Fill

6-1 The proponent shall provide a cover of not less than one metre of clean fill over the waste fill in all "uncovered open space areas", such as horse training grounds, horse paddocks, landscaped gardens and lawns.

6-2 For those areas where development will consist of "hardstands" or "buildings", the proponent shall provide a cover of clean fill of not less than 0.5 metres.

- 6-3 It is preferable that all services, such as power, drainage and telephone, be installed within the cover material, however where there is a need to locate services below the cover, prior to installation of such services, the proponent shall carry out soil validation tests to demonstrate that the soil is not contaminated, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

Note: The National Environment Protection Measure recommends a minimum cover of 0.5 metres for a "commercial/industrial" land use.

7 Hydrocarbon-Contaminated Soil

- 7-1 Prior to ground-disturbing activities, the proponent shall prepare a Hydrocarbon Management Plan to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

The objectives of this plan are to:

- protect public health; and
- achieve effective and timely on-site treatment of contaminated soil.

This Plan shall address the following:

- (1) Remediation trials using landfarming methods for initial treatment on-site of not more than 20 percent of the available contaminated soil;
 - (2) Staged treatment;
 - (3) Air quality monitoring designed to protect public health;
 - (4) Remediation to Environmental Investigational Levels or levels acceptable to the Environmental Protection Authority, if remediated soil is to be re-instated on the site (See note 2 below on reference document); and
 - (5) Contingency plan(s) for removal and treatment/disposal off-site of contaminated soil, whether or not remediation has begun, if deemed necessary by the Environmental Protection Authority.
- 7-2 The proponent shall implement the Hydrocarbon Management Plan required by condition 7-1 to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.
- 7-3 The proponent shall make the Hydrocarbon Management Plan required by condition 7-1 publicly available, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

Procedures

- 1 Where a condition states "to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority", the Chief Executive Officer of the Department of Environmental Protection will obtain that advice for the preparation of written advice to the proponent.

- 2 The Environmental Protection Authority may seek advice from other agencies, as required, in order to provide its advice to the Chief Executive Officer of the Department of Environmental Protection.

Note

- 1 The Minister for the Environment and Heritage will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.
- 2 Reference document: Department of Environmental Protection's Draft Guidelines "*Assessment Levels for Soil, Sediment and Water*" (December, 2001) and its revisions.

Dr Judy Edwards MLA

MINISTER FOR THE ENVIRONMENT AND HERITAGE

25 NOV 2002

Schedule 1

Proposal (Assessment No. 1349)

The remediation of 15.5 hectares (Areas B, C and D) of the 70 hectare Midland Railway Workshops site located immediately south of the Midland town centre in Midland. The main characteristics of the proposal are summarised in table 1 below.

Table 1 - Key Proposal Characteristics

Element	Description
SITE IDENTIFICATION	The development site is identified as part of Reserve 2299 on Swan Location 12698. The site occupies an area of approximately 15.5 hectares and is located in the south-east part of the Midland Railway Workshops site.
CURRENT ZONING	Industrial
PROPOSED ZONING	Public purposes, commercial, service and light industrial.
DEMOLITION	Nil (There are buildings and structures within the project area)
NATURE OF CONTAMINANTS	<i>Waste Fill:</i> Approx. 230,000 cubic metres of waste fill over 9 hectares of the 15.5 hectare site consists of coal cinder, foundry slag, building rubble, sand, steel and occasional asbestos products. <i>Soil:</i> Low concentrations of heavy metal and hydrocarbon contamination at the base of the waste fill. <i>Groundwater:</i> Low concentrations of heavy metals and hydrocarbons. <i>Helena River:</i> No trace of contamination found in sediment and water.
REMEDICATION AND MANAGEMENT	
Soil/Waste Fill	<ul style="list-style-type: none"> • relocate 50,000 cubic metres of waste fill from the western part of the site and place in the far eastern part of the site. Remaining 180,000 cubic metres of waste fill will stay as is. Prepare and implement a management program to ensure the safe and efficient relocation of waste fill material. • Remove the hydrocarbon dump (approx 5,000 cubic metres) and treat on-site using landfarming bioremediation method before relocating to the far eastern part of the site. Prepare and implement a Hydrocarbon Management Plan for the remediation works. • Place between 0.5 metres to one metre of clean soil cover over a clearly visible, tear-resistant geotextile warning barrier over the waste fill area. • Prepare and implement a Waste Management Plan to ensure that excavations, transport and relocation of waste fill is carried out in a safe and environmentally acceptable manner. • Prepare an Asbestos Management Plan. • Prepare and implement an Irrigation Management Plan to minimise water entering the waste fill so as to prevent accelerated leaching of the fill.

Groundwater	<ul style="list-style-type: none"> • Natural attenuation of contaminants by clay soils which exhibit a strong capacity to adsorb heavy metals and hydrocarbons. • Prepare and implement a Groundwater Management Plan where groundwater will be regularly monitored at the source and downgradient to check the effectiveness of natural attenuation. • Ban the use of contaminated groundwater by placing memorials on titles. • Prepare a Groundwater Contingency Plan to be implemented if groundwater monitoring indicates a risk to the Helena River.
Helena River	<ul style="list-style-type: none"> • Replace the existing stormwater infrastructure to prevent the leakage of contaminated groundwater into the stormwater system. • Prepare and implement a Stormwater Management Plan to improve water quality entering the river system.
Dust	<ul style="list-style-type: none"> • Prepare and implement a Dust and Air Quality Management Plan for excavation and transportation activities including an extensive air monitoring program.
Noise and vibration	<ul style="list-style-type: none"> • Prepare and implement a Noise and Vibration Management Plan outlining noise mitigation measures and monitoring requirements.

Figures (attached)

Figure 1 - Location of the Midland Railway Workshop site in Midland.

Figure 2 - Project area showing waste fill and hydrocarbon contamination on Midland Railway Workshop site – Areas B, C and D.

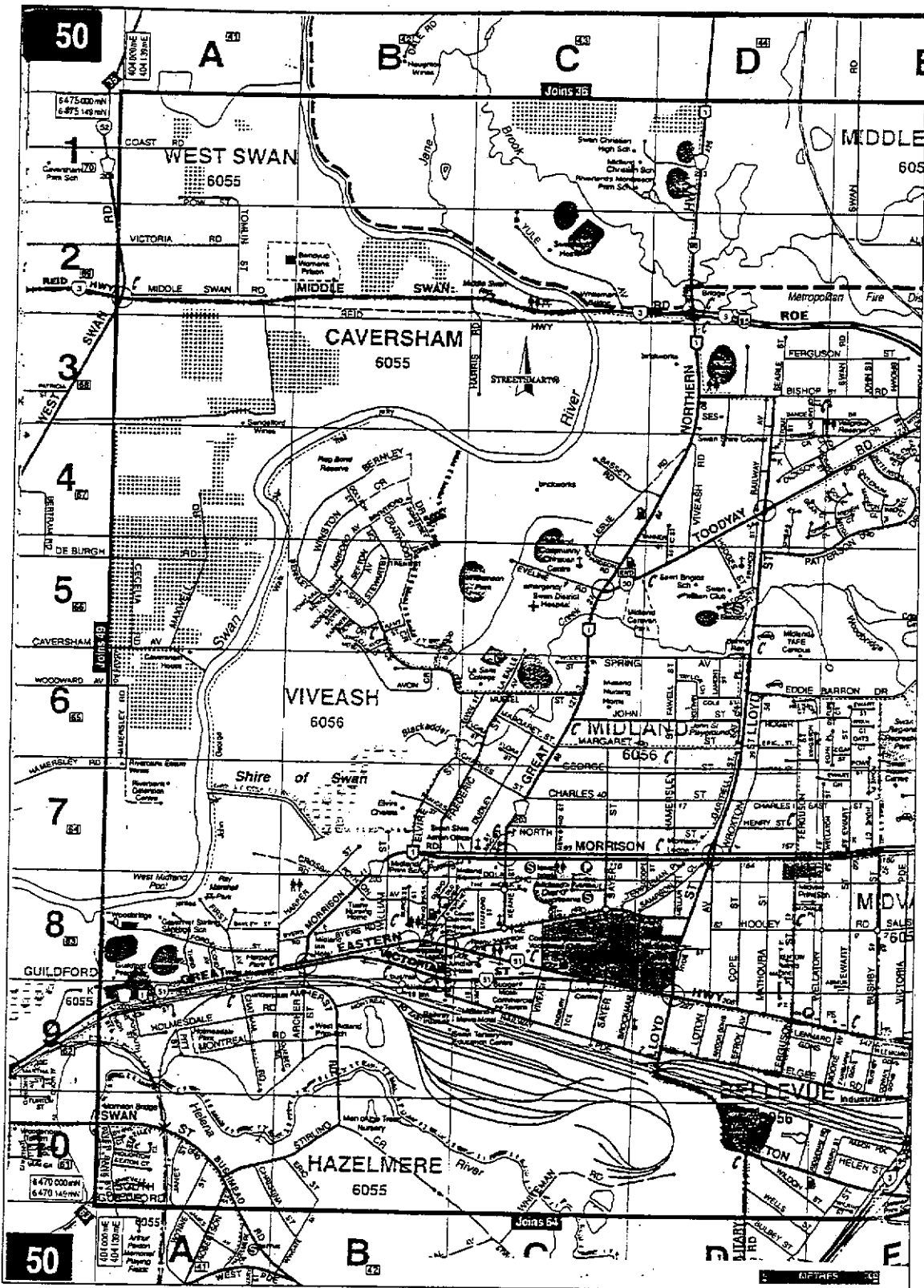


Figure 1 Location of the Midland Railway Workshop site in Midland

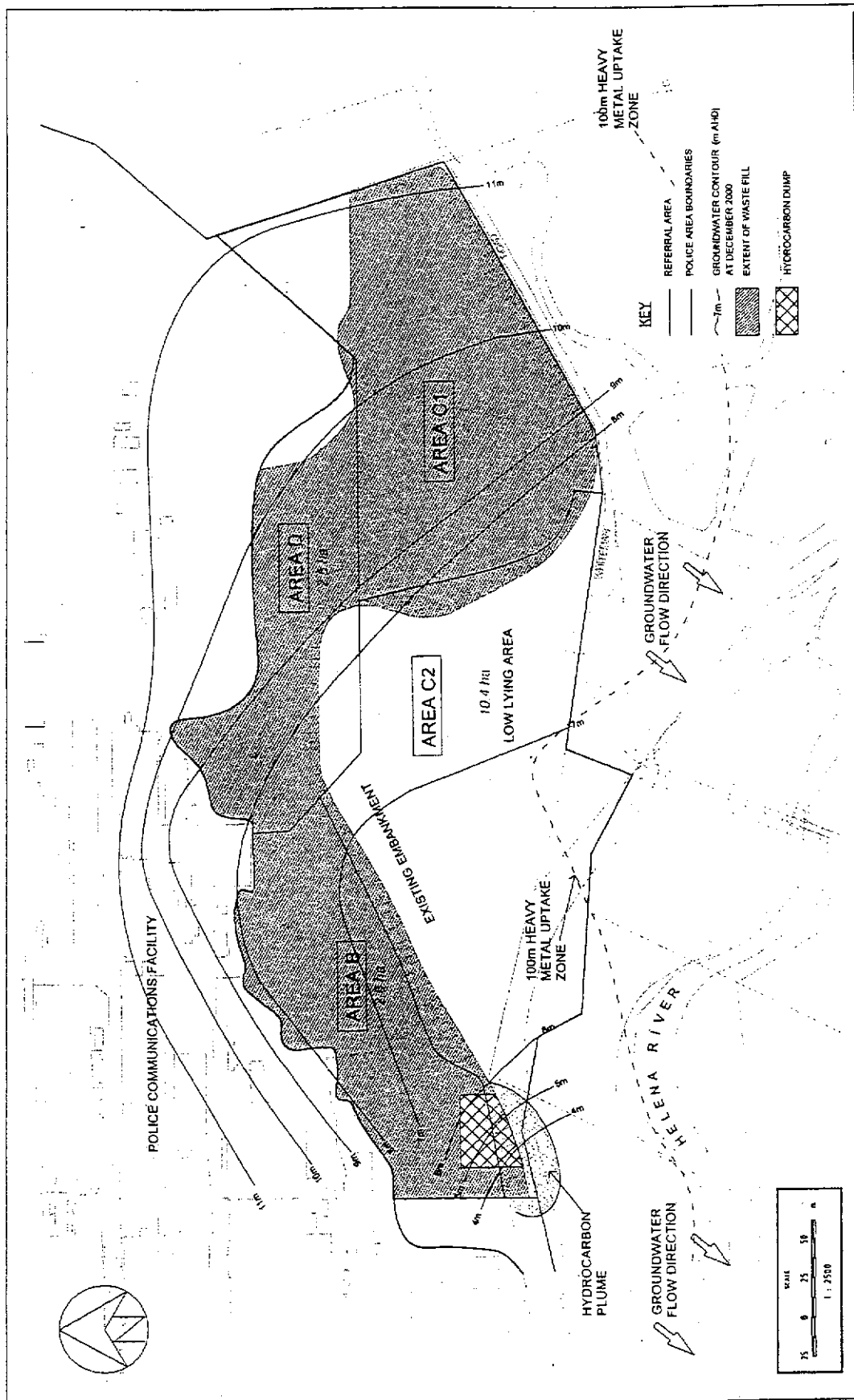


Figure 2 Project area showing waste fill and hydrocarbon contamination on Midland Railway Workshop site – Areas B, C and D

**Proponent's Consolidated Environmental Management
Commitments**

August 2002

**REMEDICATION OF THE MIDLAND RAILWAY
WORKSHOP SITE, AREAS B, C & D, MIDLAND
CITY OF SWAN**

(Assessment No. 1349)

MIDLAND REDEVELOPMENT AUTHORITY

PROPOSER'S ENVIRONMENTAL MANAGEMENT COMMITMENTS - REMEDIATION OF THE MIDLAND RAILWAY WORKSHOPS SITE, AREAS B, C & D, CLAYTON PRECINCT, MIDLAND (Assessment No. 1349)

No.	Topic	Action	Objectives	Timing	Advice
1.	Rehabilitation	Determine an appropriate cover thickness based on an assessment of risk exposure to the waste fill as a consequence of the proposed land use.	To prevent exposure to contaminated material by future users of the site.	Prior to commencement of ground-disturbing activities	DOH
2.	Rehabilitation	Remove waste material to an acceptable landfill which cannot be accommodated on site due to potential changes in final design levels	To prevent contaminated material removed from the western part of the site being relocated inconsistent with the final plans for the Police development.	During remediation	DOH
3.	Remediation	Prepare a Hydrocarbon Management Plan addressing: <ul style="list-style-type: none"> • bioremediation process • validation testing • assessment of residual leachate potential. 	To ensure the safe and effective treatment of impacted fill to remove potential of waste material to degrade underlying groundwater.	Prior to commencement of ground-disturbing activities	
4.	Remediation	Implement the Hydrocarbon Management Plan.	To ensure the safe and effective treatment of impacted fill to remove potential of waste material to degrade underlying groundwater.	During remediation	
5.	Remediation	Remove to suitable landfill the hydrocarbon-impacted fill that is not effectively treated by remediation.	To prevent contamination of groundwater from leaching of contaminants from the waste fill.	During remediation	
6.	Compliance	Undertake validation testing of excavation once hydrocarbon-impacted fill has been removed.	To demonstrate hydrocarbon-impacted fill has been removed.	During remediation	
7.	Air Emissions	Prepare a Dust and Air Quality Management Plan addressing: <ul style="list-style-type: none"> • air quality monitoring; • asbestos monitoring; and • dust management practices. 	To ensure nuisance and contaminated dust, including asbestos fibres, potentially generated from remedial works comply with regulatory standards protective of human health.	Prior to commencement of ground-disturbing activities	DOH

No.	Topic	Action	Objectives	Timing	Advice
8.	Air Emissions	Implement the Dust and Air Quality Management Plan.	To ensure nuisance and contaminated dust, including asbestos fibres, potentially generated from remedial works comply with regulatory standards protective of human health.	Prior to commencement of ground-disturbing activities	DOH
9.	Waste Relocation	Prepare a Waste Management Plan for the excavation, transport and relocation of the waste fill.	To ensure that the relocation of the waste fill on site is carried out in an environmentally acceptable manner.	Prior to commencement of ground-disturbing activities	
10.	Waste Relocation	Implement the Waste Management Plan.	To ensure that the relocation of the waste fill on site is carried out in an environmentally acceptable manner.	During remediation	
11.	Groundwater Quality	Prepare an Irrigation Management Plan addressing: <ul style="list-style-type: none"> • water balance; • subsurface drainage; and • overall irrigation strategy. 	To reduce subsurface drainage and enhanced leaching of contaminants into the underlying groundwater.	Post-remediation	WRC
12.	Groundwater Quality	Implement the Irrigation Management Plan.	To reduce subsurface drainage and enhanced leaching of contaminants into the underlying groundwater.	Post-remediation	
13.	Groundwater Quality	Prepare a Groundwater Management Plan addressing: <ul style="list-style-type: none"> • monitoring of groundwater levels; and • monitoring of groundwater quality. 	To monitor the performance of remedial works and attenuation of contaminants from groundwater into natural soils. To monitor trends in groundwater levels.	Prior to commencement of ground-disturbing activities	WRC
14.	Groundwater Quality	Implement the Groundwater Management Plan.	To monitor the performance of remedial works and attenuation of contaminants from groundwater into natural soils. To monitor trends in groundwater levels.	Post-remediation	WRC
15.	Groundwater Quality	Re-run the fate and transport groundwater model for hydrocarbon contaminants without the use of the dispersion factor and using site-specific degradation rates.	To demonstrate that natural attenuation alone will degrade contaminants to levels acceptable for discharge into the Helena River.	Prior to commencement of ground-disturbing activities	WRC

No.	Topic	Action	Objectives	Timing	Advice
16.	Groundwater Quality	Prepare a Groundwater Contingency Plan addressing: <ul style="list-style-type: none"> • treatment of contaminated groundwater; and • management of any groundwater impact. 	To prevent elevated contaminant levels from reaching and potentially harming the aquatic environment of the Helena River.	Prior to commencement of ground-disturbing activities	WRC
17.	Groundwater Quality	Implement the Groundwater Contingency Plan in the event that monitoring shows that elevated contaminant levels will reach the Helena River.	To prevent elevated contaminant levels from reaching and potentially harming the aquatic environment of the Helena River.	Post-remediation (dependent on monitoring results)	
18.	Groundwater Usage	Restrict groundwater usage in all impacted areas by placing memorials on titles.	To prevent use of contaminated groundwater unsuitable for irrigation purposes.	Post-remediation	DPI
19.	Surface water Quality	Prepare a Stormwater Management Plan for managing stormwater discharging from the site, addressing: <ul style="list-style-type: none"> • drainage patterns; and • stormwater quality monitoring program. 	To monitor the performance of the stormwater system in attenuating contaminants.	Prior to commencement of ground-disturbing activities	WRC
20.	Surface water Quality	Implement the Stormwater Management Plan.	To monitor the performance of the stormwater system in attenuating contaminants.	Prior to commencement of ground-disturbing activities	
21.	Surface water Quality	Finalise design of stormwater disposal system according to best management practice.	To ensure the stormwater system does not collect contaminants from waste fill areas and discharge these directly into the Helena River.	Prior to commencement of ground-disturbing activities	WRC
22.	Soil Quality	Prepare a Sub-surface Constraints Register detailing: <ul style="list-style-type: none"> • location; • depth of retained waste fill; and • details of cover. 	To prevent uncontrolled contact with the waste fill.	Post-remediation	
23.	Noise and Vibration	Prepare a Noise and Vibration Management Plan addressing: <ul style="list-style-type: none"> • prevention of excessive and nuisance noise; and • prevention of damage due to vibration. 	To prevent noise emissions and vibration during remedial works exceeding regulatory standards.	Prior to commencement of ground-disturbing activities	

No.	Topic	Action	Objectives	Timing	Advice
24.	Noise and Vibration	Implement the Noise and Vibration Management Plan	To prevent noise emissions and vibration during remedial works exceeding regulatory standards.	Prior to commencement of ground-disturbing activities	
25.	Community Consultation	Consult with interest groups and keep the local community informed on the progress of the remedial works.	To inform, seek feedback and address community concerns about the project.	Prior to commencement of ground-disturbing activities	
26.	Transport	Prepare a Transport Management Plan addressing: <ul style="list-style-type: none"> • transport route; • vehicle roadworthiness; • covering of loads; and • Emergency response. 	To reduce disruption and nuisance to the local community during the transport of clean fill to the site	Prior to commencement of ground-disturbing activities	
27.	Transport	Implement Transport Management Plan.	To reduce disruption and nuisance to the local community during the transport of clean fill to the site	Prior to and during commencement of ground-disturbing activities	
28.	Asbestos	Prepare an Asbestos Waste Management Plan addressing: <ul style="list-style-type: none"> • handling and relocation of contaminated waste fill during the remediation; and • long term management of the waste fill. 	To prevent the release of asbestos fibres from the waste fill during the remediation and post-development of the site.	Prior to commencement of ground-disturbing activities	DOH
29.	Asbestos	Implement the Asbestos Waste Management Plan.	To prevent the release of asbestos fibres from the waste fill during the remediation and post-development of the site.	Prior to and during commencement of ground-disturbing activities. Post-remediation.	DOH

Abbreviations

- DEP Department of Environmental Protection
- DOH Department of Health
- DPI Department for Planning and Infrastructure
- EPA Environmental Protection Authority
- WRC Water and Rivers Commission.