



Statement No.

MINISTER FOR THE ENVIRONMENT

000640

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

**REMEDICATION OF MIDLAND RAILWAY WORKSHOPS SITE
HELENA WEST AREA, HELENA PRECINCT, MIDLAND**

Proposal: The remediation of approximately 15.5 hectares of land which includes the western portion (Helena West) of the former Midland Railway Workshops Site within the Helena West precinct in Midland, for residential, commercial and public open space purposes, 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: 1488

Report of the Environmental Protection Authority: Bulletin 1111

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

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 determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.
- 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 determines, on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

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- 2 DEC 2003

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 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 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 substantially commence the proposal within five years of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment 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 prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

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

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

5 Compliance Audit

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

- 1 the status of implementation of the proposal as defined in schedule 1 of this statement;
- 2 evidence of compliance with the conditions and commitments; and
- 3 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.

6 Dust and Air Quality

6-1 Prior to the commencement of works, the proponent shall have in place a Dust and Air Quality Management Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, the Department of Health and the Department of Environmental Protection (Air Quality Management Branch).

This Plan shall address:

1. air quality monitoring;
2. asbestos monitoring; and
3. dust management practices,

and specifically, shall include ambient monitoring during remediation:

4. at the boundary of Helena West site at not less than two locations on the boundary for Particulate Matter (PM₁₀ and PM_{2.5}), total suspended particulates (TSP), arsenic, copper, lead and zinc, and asbestos fibres;
5. for total suspended particulates, and arsenic, copper, lead and zinc in the vicinity of and surrounding the areas to be disturbed; and
6. for naphthalene, benzene, xylene, sulphur dioxide and hydrogen sulphide in the vicinity of and surrounding the coal dam;

and additionally, shall indicate "absolute" and "target" levels as follows:

<i>Absolute</i>	Arsenic	5 ug/m ³ / 8 hour
	Copper	100 ug/m ³ / 8 hour
	Lead	0.5 ug/m ³ / year
	Zinc	1000 ug/m ³ / 8 hour
	Asbestos	0.01 fibres/mL
	Naphthalene	1 ppm/ 8 hour
	Benzene	50 ug/m ³ / 8 hour
	Xylene	8 ppm (8 hour)
	Sulphur dioxide	0.25 ppm/ 1 hour
	Hydrogen sulphide	1 ppm/ 8 hour
<i>Target</i>	PM ₁₀	50 ug/m ³ / 24 hour
	PM _{2.5}	25 ug/m ³ / 24 hour
	TSP	150 ug/m ³ / 24 hour

- 6-2 In the event of an exceedence of any of the "absolute" levels required by condition 6-1 at any of the monitoring sites, the proponent shall immediately cease all activities on the project site, and not recommence until an investigation report has been prepared and submitted to the Department of Environmental Protection, and approval to recommence has been given by the Department of Environmental Protection.
- 6-3 In the event of an exceedence of any of the "target" levels required by condition 6-1 at any of the monitoring sites, the proponent shall immediately modify activities on the project site, and achieve levels below "target" levels as soon as possible, and submit a report to the Department of Environmental Protection outlining the action taken to achieve levels below the target, including time to be taken.

7 Coal Dam Remediation

- 7-1 Prior to commencement of works associated with the Coal Dam, the proponent shall have in place a Coal Dam Remediation Plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Environmental Protection (Land and Water Quality Management Branch).

8 Validation Report

- 8-1 Within one month following the completion of works, the proponent shall prepare and submit to the Department of Environmental Protection a Validation Report to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Department of Environmental Protection (Land and Water Quality Management Branch).

Procedures

- 1 Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environmental Protection for the preparation of written advice to the proponent.
- 2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environmental Protection.

Notes

- 1 The Minister for the Environment 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 Within this statement, to "have in place" means to "prepare, implement and maintain for the duration of the proposal".

Judy Edwards

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT

- 2 DEC 2003

Schedule 1

Proposal (Assessment No. 1488)

The remediation of approximately 15.5 hectares of land which includes the western portion (Helena West) of the former Midland Railway Workshops Site within the Helena West precinct in Midland, for residential, commercial and public open space purposes.

The main characteristics of the proposal are summarised in table 1 below.

Table 1 - Key Proposal Characteristics

Element	Description
SITE IDENTIFICATION	The site occupies an area of approximately 15.5ha and is located on the western part of the former Midland Railway Workshops.
CURRENT ZONING	INDUSTRIAL
PROPOSED ZONING	RESIDENTIAL, COMMERCIAL AND PUBLIC OPEN SPACE PURPOSES.
DEMOLITION	Yes
NATURE OF CONTAMINANTS	<p><i>Waste Fill:</i> approximately 65,000m³ of waste fill over an area of 2ha consists of building rubble, cinder ash, foundry sand and slag and occasional asbestos products such as fibre cement and lagging.</p> <p><i>Inert Fill:</i> Approximately 1ha of the Helena West site west of the coal dam contains 10,000 m³ of inert fill which contains heavy metals, asbestos, pesticides and hydrocarbons.</p> <p><i>Floodplain sediments:</i> approximately 5,000m³ of sediments containing heavy metals and asbestos fibres are located on the floodplain.</p> <p><i>Surface soil:</i> approximately 60,000m³ of surface soils present over an area of 12ha consists of sand, gravel, rock ballast and layers of coal cinders with low-levels of heavy metals.</p> <p><i>Coal Dam:</i> approximately 8,000m³ of oily sludge and sediments present over a 1ha site contain heavy metals and hydrocarbons.</p> <p><i>Groundwater:</i> localised low concentration of heavy metals and hydrocarbons.</p>
REMEDICATION AND MANAGEMENT	
Waste fill Inert fill Surface soils Floodplain sediments Coal dam oily sludge Environmental Management Program	<ul style="list-style-type: none"> Retain 65,000m³ of <i>waste fill</i> in Helena West and cover with a clearly visible warning barrier and at least 1 metre cover of clean soil. Excavate, screen and validate on-site 10,000 m³ of <i>inert fill</i> for reuse as clean fill. Relocate 5,000 m³ of <i>floodplain sediments</i> to Area C containment area in the far eastern part of the Workshop site and cover with a clearly visible warning barrier and 1 metre cover of clean soil. Relocate 60,000m³ of <i>surface soils</i> to Area C containment area in the far eastern part of the Workshop site and cover with a clearly visible warning barrier and 1 metre cover of clean soil.

	<ul style="list-style-type: none"> • Remove 5,000m³ of oily sludge and sediments from the base of the coal dam and treat on-site prior to disposal off-site to landfill. • Obtain final approval of the Coal Dam Remediation Plan to finalise the removal and treatment methods. • Obtain final approval of the Dust and Air Quality Management Plan. • Implement the Environmental Management Program which includes the following plans to ensure remedial works are undertaken in a safe and effective manner: <ul style="list-style-type: none"> - Waste Management Plan; - Asbestos Management Plan; - Coal Dam Remediation Plan; - Dust and Air Quality Management Plan; - Noise and Vibration Management Plan; - Validation Plan; - Groundwater Management and Contingency Plan; - Stormwater Management Plan; and - Irrigation Management Plan. • Place memorials on titles and prepare a Sub-surface Constraints Register to outline the presence of the waste material and prevent contact. • Prepare an Environmental Management System (EMS) to ensure the waste is managed securely in the long term.
Groundwater	<ul style="list-style-type: none"> • Use of natural attenuation capacity of clay soils "bind" heavy metals. • Carry out a fate and transport modelling study model to predict potential risk of contaminants to reach the Helena River. • Implement contingency measures to cover the waste fill areas with an impermeable cap to prevent leaching, if groundwater monitoring or modelling indicates a risk to the Helena River.
Helena River	<ul style="list-style-type: none"> • Implement the Stormwater Management Plan to replace the existing system to prevent contaminated groundwater from entering the stormwater system.
Worker and Public Safety	<ul style="list-style-type: none"> • Implement the Public Occupational Health and Safety Plan as approved by Worksafe WA.

Abbreviations

ha = hectares
m³ = cubic metres

Figures (attached)

Figure 1 - Location of Midland Railway Workshop Site, Helena West in Midland;
Figure 2 - Investigation area and contamination sources; and
Figure 3 - Current contamination status.

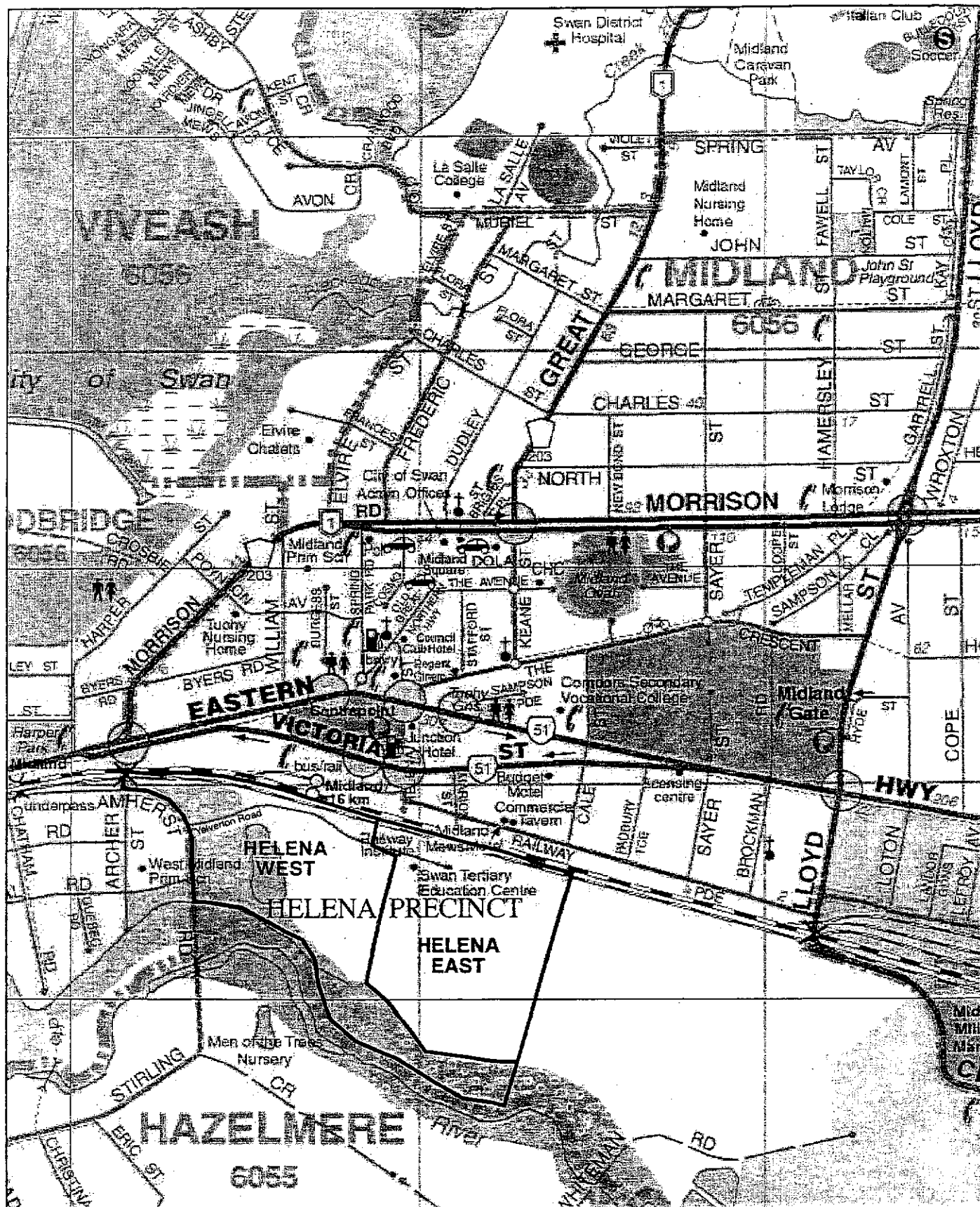


Figure 1: Location of Midland Railway Workshop Site, Helena West in Midland.

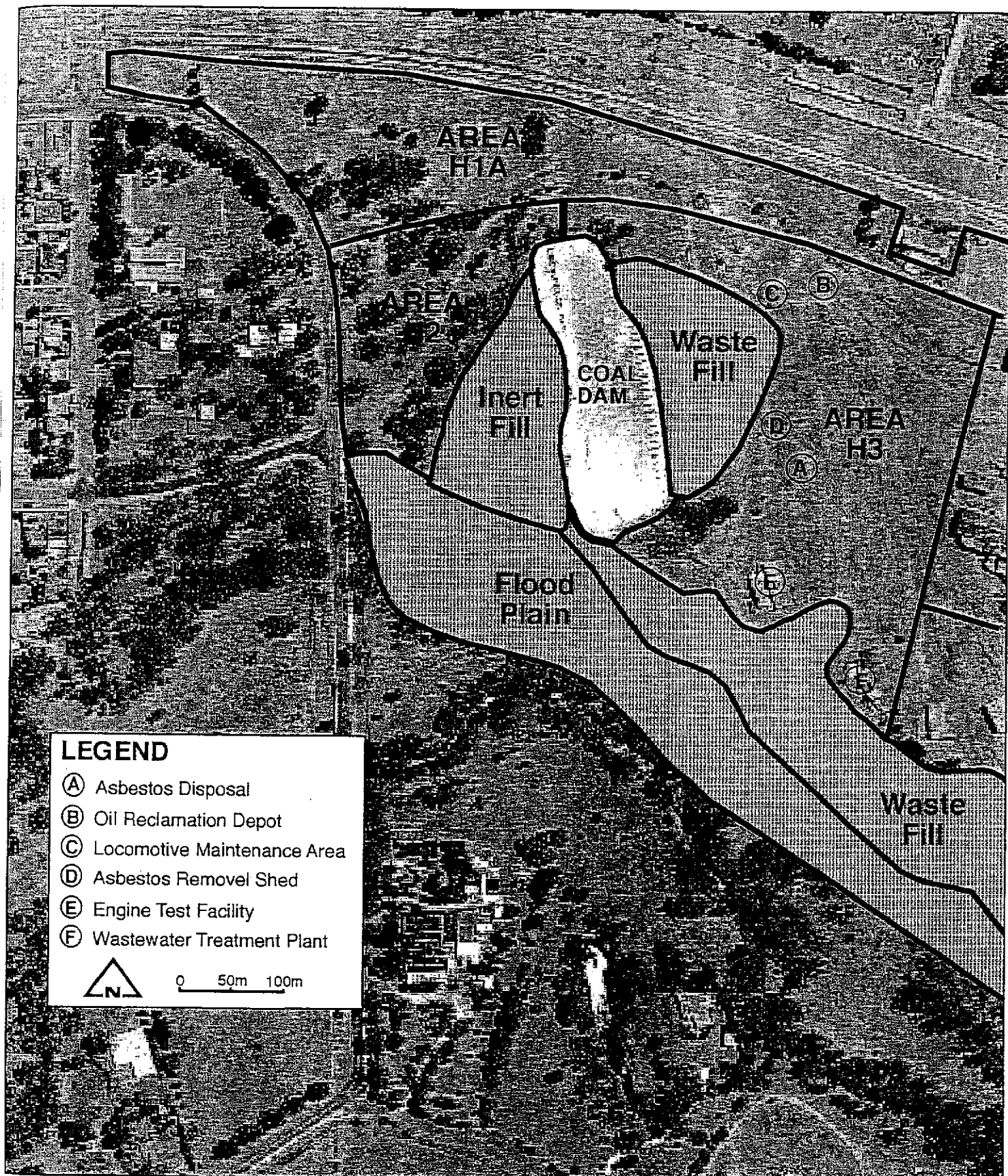


Figure 2: Investigation area and contamination sources

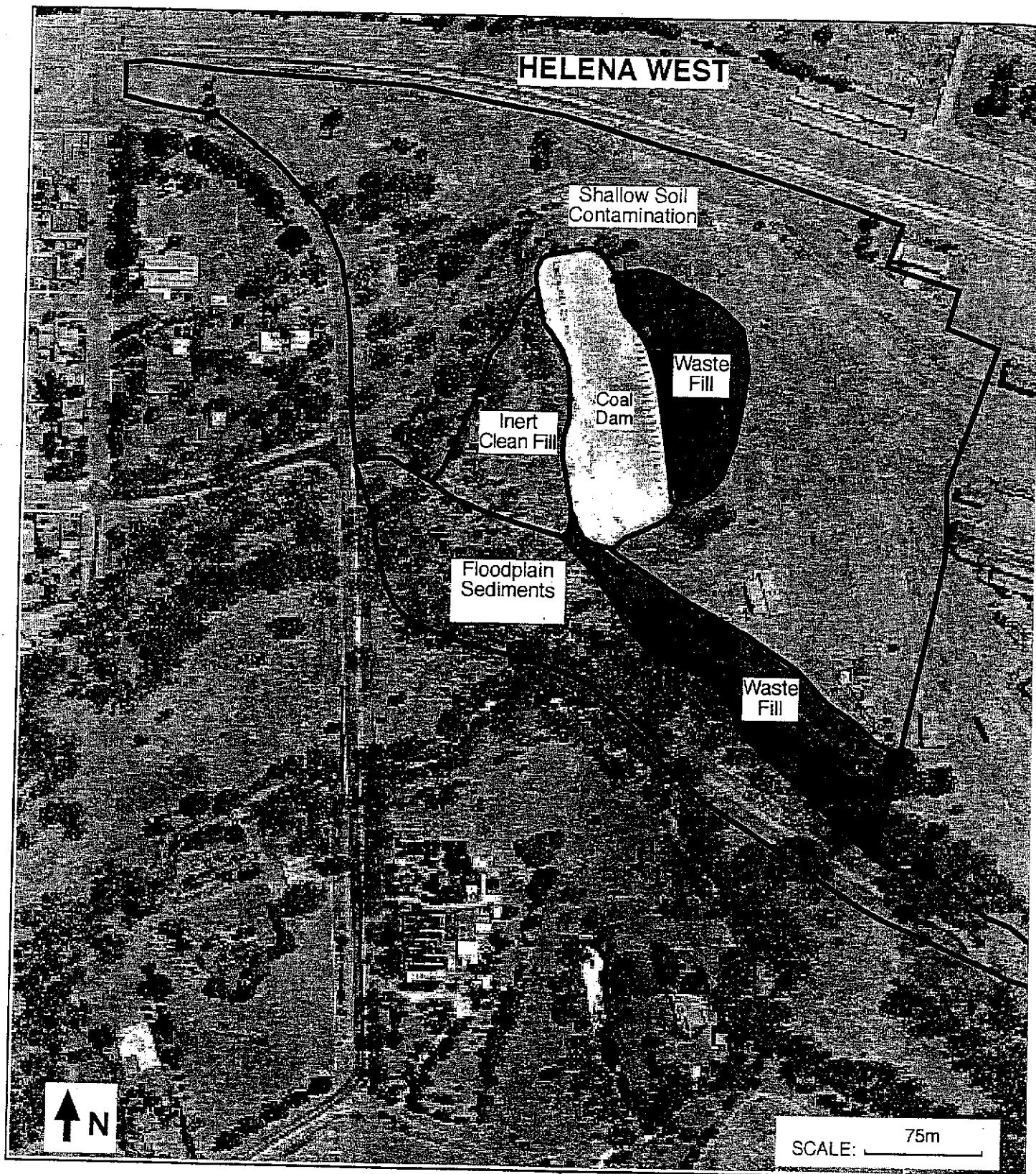


Figure 3: Current contamination status

Schedule 2

**Proponent's Consolidated Environmental Management
Commitments**

November 2003

**REMEDICATION OF MIDLAND RAILWAY
WORKSHOPS SITE - HELENA WEST AREA
HELENA PRECINCT, MIDLAND**

(Assessment No. 1488)

MIDLAND REDEVELOPMENT AUTHORITY

PROPONENT'S CONSOLIDATED ENVIRONMENTAL MANAGEMENT COMMITMENTS

REMEDICATION OF MIDLAND RAILWAY WORKSHOPS SITE - HELENA WEST AREA, HELENA PRECINCT, MIDLAND (Assessment No. 1488) - MIDLAND REDEVELOPMENT AUTHORITY (NOVEMBER 2003)

Note: The term "commitment" as used in this schedule includes the entire row of the table and its six separate parts as follows:

- A commitment number;
- A commitment topic;
- The "action" to be undertaken by the proponent;
- The objective of the commitment;
- The timing requirements of the commitment; and
- The body/agency to provide technical advice to the Department of Environmental Protection.

No.	Topic	Action	Objectives	Timing	Advice
1.	Rehabilitation	Cover waste material with a warning barrier and a clean soil cover of at least 0.5m beneath hardstand and 1 metre in open areas.	To prevent direct contact with hazardous material.	Post remediation	
2.	Groundwater Quality	Perform a computer fate and transport groundwater model for the heavy metal contaminants from the waste fill.	To determine whether natural attenuation alone will degrade contaminants to levels acceptable for discharge into the Helena River and the need for an impermeable cap to prevent leaching.	Post remediation	
3.	Waste Management	Implement the Waste Management Plan for the excavation, transport and relocation of the waste fill previously submitted.	To ensure that waste fill is relocated to the correct locations and that the material is excavated and shifted in a safe manner.	During remediation	
4.	Asbestos Products	Implement the Asbestos Waste Management Plan previously submitted addressing the handling and disposal of asbestos dumps.	To prevent the release of asbestos fibres from the remedial works.	During remediation	DOH

No.	Topic	Action	Objectives	Timing	Advice
5.	Asbestos Management	Perform a health risk assessment for very low-level asbestos impacted ground that cannot be removed from the floodplain due to retention of vegetation.	To ensure the asbestos does not become airborne and represent an unacceptable risk to public health.	Post remediation	DOH
6.	Noise and Vibration	Implement the Noise and Vibration Management Plan addressing: -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.	During remediation	
7.	Soil Quality Validation	Implement the Validation Plan addressing: -sampling methodology; and -clean-up criteria.	To ensure that all contaminated soil is removed.	During remediation	
8.	Soil Quality	Prepare a Sub-surface Constraints Register detailing location and depth of retained waste fill, including details of cover construction.	To prevent uncontrolled contact with the waste fill.	Post remediation	
9.	Groundwater Quality	Implement the Groundwater Management and Contingency Plan addressing: -monitoring of groundwater levels; -monitoring of groundwater quality, with advice of the results to the Department of Education and Training; -treatment of contaminated groundwater; and -management of any groundwater impact.	To monitor the performance of remedial works and attenuation of contaminants from groundwater into natural soils and prevent elevated contaminant levels from reaching and potentially harming the aquatic environment of the Helena River.	Post remediation	
10.	Irrigation Management Plan	Implement the Irrigation Management Plan addressing: -water balance, subsurface drainage; and -overall irrigation strategy.	To minimise subsurface drainage and enhanced leaching of contaminants into the underlying groundwater.	Post remediation	
11.	Stormwater Quality Management	Implement the Stormwater Management Plan previously submitted for managing stormwater discharging from the site.	To monitor the performance of stormwater system in attenuating contaminants.	Post remediation	

No.	Topic	Action	Objectives	Timing	Advice
12.	Stakeholder Consultation Strategy	<p>Prepare a Stakeholder Consultation Strategy which includes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identification of stakeholders including, community groups, Midland TAFE, local Woodbridge school community, environmental groups, local government and government agencies; <input type="checkbox"/> Outlining opportunities to discuss the management plans and monitoring programs with stakeholders; and <input type="checkbox"/> Reporting on environmental performance. 	To inform, seek feedback and address community concerns about the project, and ensure that outcomes are incorporated into the management of the proposal.	Prior to commencement of ground-disturbing activities	
13.	Complaints Register	Prepare and operate a complaints register for the duration of the works.	To monitor the performance of the management controls with relation to the remedial works.	Prior to commencement of ground-disturbing activities	

Abbreviations

DOH	Department of Health
TAFE	Technical and Further Education