

MINISTER FOR THE ENVIRONMENT; SCIENCE

Statement No.

000701

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
AND
STATEMENT THAT A REVISED PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

INDUSTRIAL DEVELOPMENT, TONKIN INDUSTRIAL PARK, BASSENDEAN
(STAGES 1 & 2)
&
TONKIN INDUSTRIAL PARK (CONTAINMENT CELL DIMENSIONS)
BASSENDEAN

Proposals: Remediation of wastes, to allow redevelopment of 42 hectares of land adjacent to Collier Road, Bassendean for industrial purposes; and subsequent change to the dimensions of the containment cell on the Stage 2 site, as documented in schedule 1 of this statement.

Proponent: Ridgeway Pty Ltd

Proponent Address: 245-253 Collier Road, BAYSWATER WA 6053

Assessment Numbers: 1587 and 1588

Previous Assessment Numbers: 126, 126-1, 1201 and 1517

Previous Statement Numbers: Statement No. 082 (published on 25 October 1989)
Statement No. 224 (published on 27 February 1992)
Statement No. 539 (published on 24 February 2000)
Statement No. 651 (published on 28 May 2004)

Reports of the Environmental Protection Authority: Bulletins 1192 and 1193.

Previous Reports of the Environmental Protection Authority: Bulletins 397, 588, 960 and 1128.

The implementation of the proposals to which the above reports of the Environmental Protection Authority relate is now subject to the following conditions which replace all previous conditions:

1 Implementation

- 1-1 Subject to these conditions, the proponent shall implement the above proposals as documented in schedule 1 of this statement.

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2 Proponent Commitments

- 2-1 The proponent shall implement the consolidated environmental management commitments documented in schedule 2 of this statement.

3 Remediation of Stage 2 Site

- 3-1 Prior to the commencement of any development of the Stage 2 site (see figure 1), the proponent shall complete remediation of the Stage 2 site by the remediation method of containment on-site or disposal offsite to manage the pyritic cinders wastes and other wastes (including rubble) located on the Stage 2 site, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 3-2 Prior to the commencement of any development of the Stage 2 site, the proponent shall carry out site validation tests to demonstrate that contaminant levels at the Stage 2 site are suitable for the intended future land use as set out in the Department of Environment Contaminated Sites Management Series, *Assessment Levels for Soil, Sediments and Water (2003)*, Version No. 3, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

4 Water Quality Management

- 4-1 Within three months following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, or within such further period as the Environmental Protection Authority may by notice in writing to the proponent specify, the proponent shall review, and revise as required, the existing Water Quality Management Plan to achieve the following objectives:

- to maintain and improve groundwater quality for existing and future beneficial uses; and
- to ensure that contaminants (originating from the proposal site) and discharging via groundwater into the Swan River through open drains meet the Australian and New Zealand Environment and Conservation Council water quality guidelines, as revised and published from time to time, established for the protection of aquatic ecosystems.

This revised Plan shall be prepared to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, the Water and Rivers Commission and the Swan River Trust, and shall address the following:

- 1 sample type,
- 2 details of bore construction,
- 3 sample locations,
- 4 monitoring frequency,

- 5 analytical protocols,
- 6 parameters; and
- 7 reporting of monitoring results.

4-2 Within 14 days following the issuing of the formal written advice by the Chief Executive Officer of the Department of Environment that the requirements of condition 4-1 have been met, or within such further period as the Environmental Protection Authority may by notice in writing to the proponent specify, the proponent shall monitor the water quality of surface and ground water to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, the Water and Rivers Commission and the Swan River Trust.

4-3 The proponent shall monitor water quality every three months at the five groundwater sites shown in Figure 2 and at four surface water sites for a minimum of five years.

The water samples shall be analysed by a laboratory registered by the National Association of Testing Authorities and the analyses shall include the following parameters:

- pH, total alkalinity, total acidity, conductivity, suspended solids, fluoride, chloride, sulphate, ammoniacal nitrogen, iron, total phosphorus, mercury, aluminium, zinc, copper, arsenic, selenium, lead, cadmium, manganese and chromium,

and heavy metals to be reported as “total metal (unfiltered)” concentrations.

After five years and subject to the results of the water quality monitoring, the Minister for the Environment may require the proponent to alter the frequency of monitoring or allow the monitoring to cease.

4-4 The proponent shall report in accordance with the *Contaminated Sites Management Series - Reporting on Site Assessments* guideline (Department of Environment, 2001) to the Department of Environment all water quality monitoring data collected on a three-monthly basis, with significant results and trends clearly indicated for the monitoring period.

4-5 The proponent shall implement the revised Water Quality Management Plan required by condition 4-1.

4-6 The proponent shall make the revised Water Quality Management Plan required by condition 4-1 publicly available.

5 Environmental Management Programme

5-1 Prior to commencement of remediation of the Stage 2 site, the proponent shall review, and revise as required, the Environmental Management Programme to achieve the following objectives:

- to protect the groundwater, the ecosystem and the amenity of the public during and after clean-up operations,

to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, the Water and Rivers Commission and the Department of Health.

The revised Programme shall address the following:

Waste Management

1. extent of contamination, volume and quantity of waste material to be contained in the containment cell and/or removed to landfill;
2. details of on-site and/or off-site treatment methods;
3. contingency plan in the event of additional contaminated material being located on the site which may require off-site disposal;

Containment Cell Design (See also condition 6-1)

4. final design details of containment cell, including base and vertical barriers;
5. capping material selection and placement;
6. separation distance between seasonal high water table and base of cell;
7. separation distance between cap and hardstand;
8. leachate monitoring;
9. contingency plan for unexpected amounts of leachate being produced which includes measures for leachate collection and treatment; and
10. stormwater drainage;

Containment Cell Construction

11. construction timeframes;
12. procedures to protect the integrity of the cell cap during and after construction;
13. independent auditing of construction of cell and capping;

Dust and Noise Management

14. dust management and monitoring procedures to minimise dust generation during site remediation operations;

15. noise and vibration management and monitoring during site remediation operations;

Transport Management

16. transport management plan for off-site disposal, addressing:
 - types of waste material
 - excavation and loading methods
 - dust control
 - types of vehicles
 - haul routes
 - disposal sites
 - documentation and records of wastes departure and destination, and
 - emergency response plan.

5-2 Prior to the commencement of any remediation of the Stage 2 site, the proponent shall implement the revised Environmental Management Programme required by condition 5-1.

5-3 The proponent shall make the revised Environmental Management Programme required by condition 5-1 publicly available.

6 Containment Cell Dimensions

6-1 The top of the cap of the containment cell shall not rise above 35.5 metres AHD.

7 Containment Cell Management

Controlling Development Over or Near the Containment Cell

7-1 There shall be no development over or within five metres of the containment cell, except for approved services.

7-2 Prior to any development on the approved subdivision of Stage 2, the proponent shall make provision for the placement of notifications of factors affecting the use and enjoyment of land (under section 70A of the *Transfer of Land Act 1893*), in conjunction with the Minister for Lands and the Department of Environment on the titles of lots over or within five metres of the containment cell, advising of the presence and details of the cell and its contents. Such notifications shall be to the requirements of the Minister for the Environment.

Monitoring and Maintaining the Integrity of the Containment Cell

7-3 The proponent shall prepare a Cell Cap Inspection, Maintenance and Repair Plan to achieve the following objectives:

- To identify any failures or faults occurring in the containment cell; and
- To implement remedial actions in the event that defects occur,

to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This Plan shall address the following:

1. Monitoring settlement and creep;
2. Monitoring erosion of the cover material;
3. Monitoring surface drainage; and
4. Remedial actions to address defects.

7-4 Following completion of the construction of the cell cap, the proponent shall immediately implement the Cell Cap Inspection, Maintenance and Repair Plan required by condition 7-3.

7-5 The proponent shall maintain grass cover, or shallow-rooted groundcover, above the cell cap to ensure that no significant wind or water erosion of the topsoil occurs.

7-6 The proponent shall ensure that no trees establish over the containment cell.

7-7 The proponent shall install drainage over the cell to ensure that rainfall infiltration and runoff is managed to prevent erosion.

7-8 The proponent shall maintain surface drainage to ensure that there is no significant erosion of the surface cover of the containment cell.

Management of Leachate from the Containment Cell

7-9 The proponent shall monitor the quantity and quality of any leachate derived from the containment cell to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority and the Swan River Trust.

The leachate samples shall be analysed by a laboratory registered by the National Association of Testing Authorities and the analyses shall include the following parameters:

- pH, fluoride, iron, total phosphorus, mercury, zinc, copper, arsenic, lead, cadmium and chromium,

and heavy metals to be reported as “total metal (unfiltered)” concentrations.

- 7-10 The proponent shall report the results of leachate monitoring required by condition 7-9 quarterly, at the beginning of June, September, December and March each year, to the Department of Environment, and shall make these results publicly available.
- 7-11 The proponent shall store any leachate from the cell in an isolated, secure tank onsite, and shall only dispose of it, whether offsite or onsite, in a manner acceptable to the Minister for the Environment.
- 7-12 The proponent shall not permit any leachate to overflow from the leachate storage tank referred to in condition 7-11.

8 Proponent

- 8-1 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 in as the proponent for the proposal.
- 8-2 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.
- 8-3 The proponent shall notify the Department of Environment of any change of proponent contact name and address within 30 days of such change.

9 Site Remediation

- 9-1 The proponent shall provide progress reports on the remediation to the Department of Environment and the Town of Bassendean at fortnightly intervals until completion, commencing two weeks after the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*.
- 9-2 The proponent shall complete the construction of the containment cell remediation works by 30 November 2005.

10 Compliance Auditing

- 10-1 The proponent shall submit periodic Compliance Reports to the Department of Environment, in accordance with an audit program prepared in consultation between the proponent and the Department of Environment.

- 10-2 Unless otherwise specified, the Chief Executive Officer of the Department of Environment is responsible for assessing compliance with the conditions, procedures and commitments contained in this statement and for issuing formal, written notice that the requirements have been met.
- 10-3 Where compliance with any condition, procedure or commitment is in dispute, the matter will be determined by the Minister for the Environment.

Notes

1. The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT; SCIENCE

25 NOV 2005

Schedule 1

Proposals (Assessment Nos. 1587 & 1588)

Redevelopment of 42 hectares of land adjacent to Collier Road, Bassendean for industrial purposes and remediation of surface wastes in two stages.

The site is bounded by Collier Road to the north and east, Alice Street to the west, and a drain reserve and Railway Parade to the south. It also includes a 2.3 hectare wedge of land to the north of Collier Road bounded by Scadden and Iolanthe Streets.

The Stage 2 site is a 17 hectare area located within the Industrial Park. The site originally contained waste consisting of pyritic cinders and building rubble spread over an area of 7 hectares. It was originally intended to place the waste in a containment cell with a 7-hectare footprint and a height of 25 metres AHD.

The configuration of the containment cell is changed by reducing the footprint from 7 hectares to 3.8 hectares and increasing the height from 25 metres AHD to 35.5 metres AHD.

The key characteristics of the proposal are described in table 1 below.

Table 1 - Key Proposal Characteristics

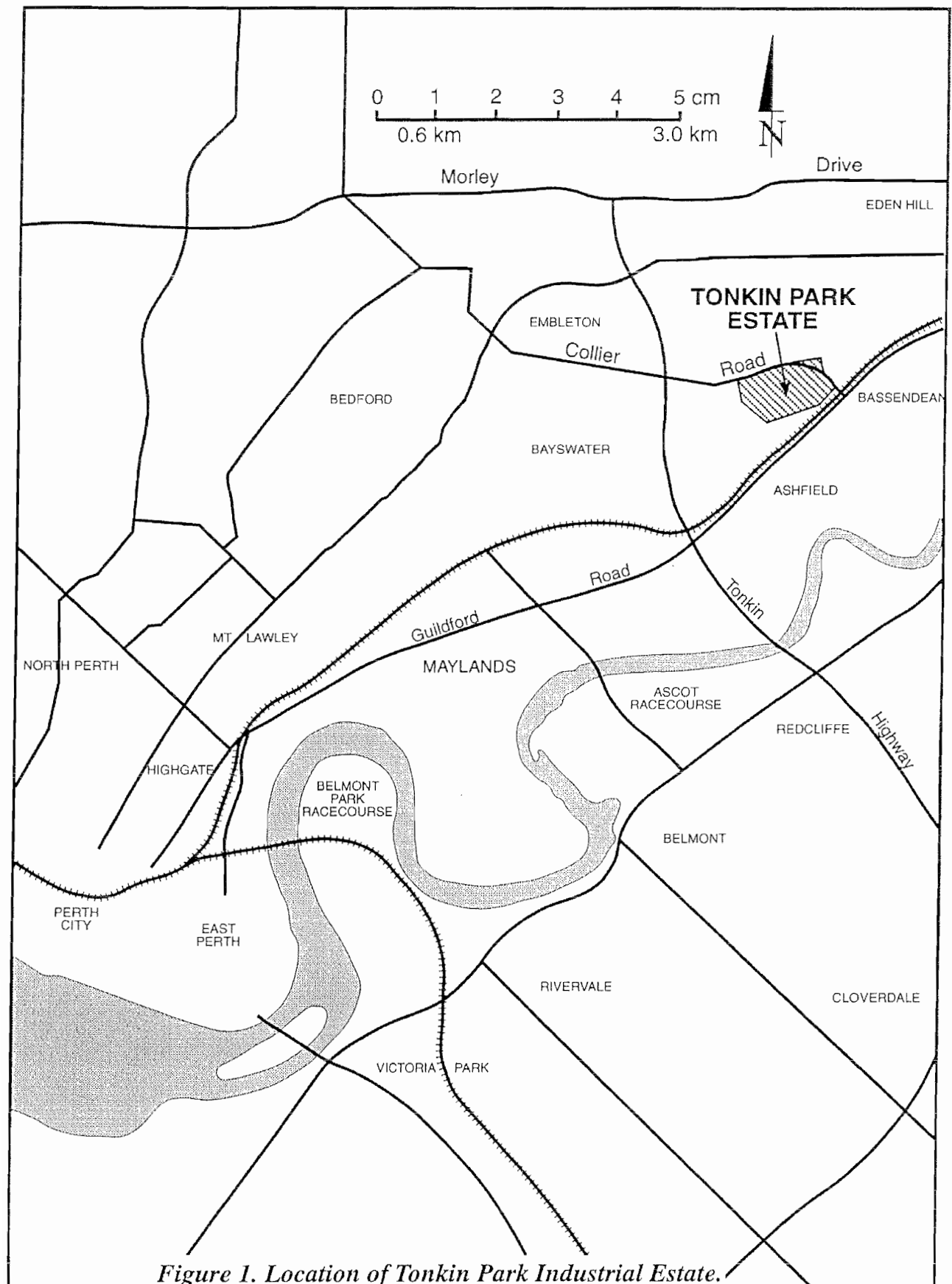
Element	Description
SITE IDENTIFICATION	<p>The development site has an area of 42 hectares and is bounded by Collier Road to the north and east, Alice Street to the west, and a drain reserve and Railway Parade to the south. It also includes a 2.3 hectare wedge of land to the north of Collier Road bounded by Scadden and Iolanthe Streets.</p> <p>Tonkin Park Stage 1 is located in the eastern half of the site, with the addition of Lots 107 and 108 in the north-west corner of the site.</p> <p>Tonkin Park Stage 2 is located in the remaining western portion.</p>
PROPERTY AREA	<p>Stage 1 - 25 hectares</p> <p>Stage 2 - 17 hectares</p>
QUANTITY OF WASTES ON SITE	300 000 to 500 000 tonnes (or 150 000 to 250 000 cubic metres)
AREA OF MODIFIED CELL BASE	3.8 hectares approximately.

HEIGHT OF MODIFIED CELL	35.5 metres AHD approximately.
COVER MATERIAL	Minimum 500 mm topsoil to sides and top of cell.
LANDSCAPING	Batter slopes and top covered with unirrigated rough mown grass. Shallow-rooted groundcover and shrubs on areas of the cell facing future road reserve.

Figures (attached)

Figure 1 Location of Tonkin Park Industrial Estate.

Figure 2 Groundwater monitoring well locations.





**Proponent's Consolidated Environmental Management
Commitments**

20 November 1999

Edited October 2005

INDUSTRIAL DEVELOPMENT
TONKIN INDUSTRIAL PARK, BASSENDEAN
(STAGES 1 & 2)
&
TONKIN INDUSTRIAL PARK
(CONTAINMENT CELL DIMENSIONS)
BASSENDEAN

(Assessment Nos. 1587 / 1588)

Ridgepoynt Pty Ltd

INDUSTRIAL DEVELOPMENT, TONKIN INDUSTRIAL PARK (STAGES 1 & 2)
& TONKIN INDUSTRIAL PARK (CONTAINMENT CELL DIMENSIONS), BASSENDEAN

Proponent's Environmental Management Commitments (1587 / 1588) - 20 November 1999 – Edited October 2005

Topic	No.	Action	Timing	Objective	Advice	Satisfy
Environmental Management Plan	1	The proponent will carry out additional site investigation and assessment through grid sampling.	before construction commences	to accurately estimate the quantity of waste to be stored on-site in a containment cell and/or be removed from site, and thus assure government departments that the cell size and design, and the proposed split between on- and off-site waste management, is reasonable.	WRC, Dept of Health	EPA
Environmental Management Plan	2	The proponent will prepare a cell construction plan.	before construction commences	to ensure that the on-site cell is constructed for the long term containment of waste.	WRC, Dept of Health.	EPA
Rehabilitation	3	The proponent will ensure that any activity pertaining to the clean-up undertaken on site will comply with legislation requirements.	during clean-up and construction of the cell	to ensure the site is rehabilitated to the Dutch 'C' criteria and to a standard compatible with the intended land use.	WRC, Dept of Health	EPA
Rehabilitation	4	Deleted.				
Rehabilitation	5	The proponent will ensure that the site clean-up will be supervised by professionals in the environmental and engineering fields using quality control and quality assurance procedures.	during clean-up and construction of the cell	to ensure the site is rehabilitated to an acceptable standard that is compatible with the intended land use, consistent with appropriate criteria.	WRC, Dept of Health	EPA, Dept of Health.

Proponent's Environmental Management Commitments (1587 / 1588)

Topic	No.	Action	Timing	Objective	Advice	Satisfy
Rehabilitation	6	The proponent will remediate the site using one or a combination of remediation options; including, but not necessarily limited to, on-site containment, on-site and/or off-site treatment, disposal to an off-site landfill, or relocation to a suitable off-site minerals processing facility.	within 3 years of the publication of the EPA bulletin	to ensure the site is rehabilitated to an acceptable standard that is compatible with the intended land use, consistent with appropriate criteria.	WRC, Dept of Health	EPA, Dept of Health.
Cell construction	7	The proponent will construct the containment cell in the southern portion of the Tonkin Park Stage II site.	within 3 years of the publication of the EPA bulletin	to ensure the site is rehabilitated to an acceptable standard that is compatible with the intended land use, consistent with appropriate criteria.	WRC	EPA, Dept of Health.
Cell construction	8	The proponent will construct the containment cell so as to ensure that all excavated waste is separated by a minimum of 2 metres vertical distance from the seasonal high water table.	within 3 years of the publication of the EPA bulletin.	to minimise the possible risk of groundwater quality impacts.	WRC, SRT	EPA
Cell construction	9	The proponent will construct the containment cell.	during clean-up and construction of the cell	to ensure that the cell is constructed to the requirements of the EPA.	WRC, SRT, Dept of Health	EPA, Dept of Health
Development	10	The proponent will use 100% of the proceeds from any sale of Stage II land exclusively to help pay for site remediation costs on a progress payment basis.	prior to project completion and final government signoff	to ensure that the site is rehabilitated to an acceptable standard that is compatible with the intended land use, consistent with appropriate criteria.	WRC, Dept of Health	EPA, Dept of Health

Proponent's Environmental Management Commitments (1587 / 1588)

Topic	No.	Action	Timing	Objective	Advice	Satisfy
Development	11	The proponent will carry out a site validation.	throughout the course of the project and prior to development	to ensure that the site is rehabilitated to an acceptable standard that is compatible with the intended land use, consistent with appropriate criteria.	Dept of Health, WRC	EPA, Dept of Health.
Development	12	The proponent agrees to place memorials on the titles of any lots subdivided over the containment cell.	in the future, if (before) development of the surface above the containment cell was to occur	to ensure that the site is maintained at an acceptable standard that is compatible with the intended land use, consistent with appropriate criteria.	Dept of Health, WRC	EPA, Dept of Health.
Monitoring Cell performance	13	The proponent will monitor the quality of leachate flowing from the cell.	during and after cell construction	to ensure that cell performance is acceptable and that any leachate generated is managed.	WRC	EPA, WRC
Monitoring Cell performance	14	The proponent will prepare and implement a leachate management plan.	during operation and maintenance	to ensure that loss of leachate from the cell does not adversely affect groundwater and the environment.	WRC	EPA
Monitoring Water Quality	15	Deleted.				

Proponent's Environmental Management Commitments (1587 / 1588)

Topic	No.	Action	Timing	Objective	Advice	Satisfy
Monitoring Water Quality	16	Surface and groundwater discharged from the site into the Chapman Street drain during construction will, if necessary, be treated.	during and after clean-up	to ensure that all surface water directed to the Swan River meets the water quality criteria established for maintenance of the fresh water ecosystem.	WRC, SRT	EPA
Monitoring Water Quality	17	The proponent will monitor the quality of groundwater leaving the site on the south side (in the direction of top aquifer groundwater flow).	during and after clean-up	to monitor and verify gradual improvements in the groundwater quality leaving the site, and flowing towards the Swan River, though other properties.	WRC, SRT	EPA
Monitoring Water Quality	18	The proponent will ensure that appropriate design and treatment measures are implemented by using professional consultants.	before, during and after clean-up	to ensure that drainage water to the Swan River meets the water quality criteria established for maintenance of the fresh water ecosystem.	WRC, SRT	EPA
Dust control	19	(a) The proponent will prepare a dust control plan.	before clean-up commences	to minimise the impact of dust on workers and the community.	Dept of Health.	EPA

Proponent's Environmental Management Commitments (1587 / 1588)

Topic	No.	Action	Timing	Objective	Advice	Satisfy
Dust control	20	(a) The proponent will ensure that trucks are covered after loading before any off-site transport of wastes. All off-site transport will comply with all relevant health and transport regulations. All off-site transport will be carried out by under the supervision of a professional consultant, appointed by the proponent. (b) The proponent will monitor dust levels.	prior to and during off-site transport during remediation	to minimise dust emission. to ensure that dust discharges during implementation of the project do not pose a risk to human health or cause loss of amenity.	Dept of Health	DoE
Dust control	21	The site cleanup work will be undertaken as far as practicable during winter months, consistent with the need to avoid handling wastes when groundwater levels are high (ie at the end of winter). Water sprays will also be used to spray dust, unless the soil is moist. Excavation and dust control will be carried out by the selected contractor to the direction, and under the supervision, of the proponent's consultants.	during on-site excavation and construction work	to minimise dust emission.	Dept of Health	EPA
Noise & vibration	22	The proponent will ensure that noise and vibration from the site will be controlled.	during on-site excavation and construction work	to meet regulations and standards.	Dept of Health	EPA

Proponent's Environmental Management Commitments (1587 / 1588)

Topic	No.	Action	Timing	Objective	Advice	Satisfy
Noise & dust	23	The proponent will conduct a survey if the DEP receives ongoing complaints relating to noise or dust emissions from the site.	following complaints, in the event of complaints	to determine management options to reduce the impact.	Dept of Health	EPA
Public health & safety	24	The proponent will ensure that all areas of remedial works will be surrounded with appropriate fencing to exclude public access. Vehicle entry and exit points will have a gate that will be locked during non-working hours. Appropriate signs will be displayed along the perimeter fencing to inform the public of the nature and purpose of the remedial works, and to prohibit public access to the site.	before, during and after remediation	to ensure that that workers on the site are not subjected to undue risk as result of the contaminated nature of the site.	Dept of Health, Worksafe	EPA
Public health & safety	25	The proponent will liaise with Worksafe and implement safe working conditions on the site. Procedures to ensure this commitment is met will be incorporated into contract conditions for the work and supervised by the proponent's consultants.	during site remediation	to ensure that that workers on the site are not subjected to undue risk as result of the contaminated nature of the site.	Dept of Health, Worksafe	EPA
Public health & safety	26	The proponent will liaise with Worksafe.	during site remediation	to ensure that that workers on the site are not subjected to undue risk as result of the contaminated nature of the site.	Worksafe	EPA

Proponent's Environmental Management Commitments (1587 / 1588)

Topic	No.	Action	Timing	Objective	Advice	Satisfy
Risk Communication	27	The proponent will brief Town of Bassendean representatives and members of the public at Town of Bassendean Council meetings, to the extent that Council members desire such updates from the proponent.	before, during and after remediation	to ensure that Town of Bassendean representatives and members of the public are kept informed of the remediation and development project's status.	Town of Bassendean	EPA
Risk Communication	28	The proponent will also prepare 1-page monthly project progress updates, to the extent that Council members desire such updates from the proponent.	before, during and after remediation	to ensure that Town of Bassendean representatives and members of the public are kept informed of the remediation and development project's status.	Town of Bassendean	EPA

Abbreviations:

DoE = Department of Environment
 EPA = Environmental Protection Authority
 SRT = Swan River Trust
 WRC = Water and Rivers Commission