

Tonkin Park Stage II Bassendean, Change to Environmental Conditions

Ridgepoynt Pty Ltd

**Section 46 Report and Recommendations
of the Environmental Protection Authority**

**Environmental Protection Authority
Perth, Western Australia
Bulletin 1193
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Contents

Page

- 1. Introduction and background 1**
- 2. The proposal 1**
- 3. Review of Environmental Conditions..... 4**
 - 3.1 Introduction 4
 - 3.2 Conditions related to the timing of the proposal 4
 - 3.3 Conditions related to ongoing groundwater monitoring 4
 - 3.4 Conditions relating to the ongoing management of the cell 5
- 4. Conditions 6**
- 5. Other advice..... 6**
- 6. Recommendations 7**

Figures

- 1. Location of Tonkin Park Industrial Estate

Appendices

- 1. References
- 2. Statements of Environmental Conditions of Approval
- 3. Recommended Environmental Conditions and Proponent’s Consolidated Commitments

1. Introduction and background

The Minister for the Environment has requested the Environmental Protection Authority (EPA) to consider and provide advice, under Section 46(1) of the Environmental Protection Act 1986, on whether the conditions of the implementation of Ridgepoynt Pty Ltd's (Ridgepoynt) proposal, to remediate the Tonkin Park Industrial site by containment of the waste on-site in a cell, should be changed. Specifically, the conditions regarding the timeline for implementation, ongoing monitoring of the groundwater and ongoing management of the cell are to be reviewed.

Further details of the proposal are presented in Section 2 of this Report. The current Environmental Conditions are reviewed in Section 3. Revised recommended conditions and procedures are set out in Section 4. Section 5 provides other advice related to implementation of the proposal, and Section 6 presents the EPA's Recommendations.

References are listed in Appendix 1 and Environmental Condition Statements No 539, published on 24 February 2000, and No 651, published on 28 May 2004, are presented in Appendix 2. The recommended conditions and procedures are provided in Appendix 3.

2. The proposal

There is considerable history concerning this development, which is briefly outlined below.

In the 1980's, property developer Northcorp purchased the 42 hectare (ha) Tonkin Park property in Bassendean (Figure 1) with the intention to subdivide and develop the property. In 1988, Northcorp submitted a Public Environmental Review (PER) to the EPA to remediate the site. Following submissions, Northcorp amended the original proposal to a two stage development. In 1990, Northcorp developed Stage I of the Tonkin Park site in accordance with Ministerial conditions which allowed Northcorp to clear the Tonkin Park Stage I site for development by relocating Stage 1 waste material to Stage II. As part of this agreement, all wastes from Stage II were to be subsequently relocated off-site to a suitable landfill before Stage II could be subdivided and sold. Development on the 25 ha Stage I land, which includes lots 107 and 108, has been completed.

In 1995, Ridgepoynt, the proponent, purchased the 17 ha Tonkin Park Stage II site from Northcorp with full knowledge of the Ministerial conditions requiring the removal of all wastes before development. The site is currently undeveloped, and has no services (power, gas, phone). It is zoned industrial and is surrounded by other industrial properties. The nearest residential property is located approximately half a kilometre to the north-east. Wastes consisting of pyritic cinders and building rubble were located in a 7 ha low-lying area within the southern portion of the site. The extent of the contamination was estimated to be up to 250,000m³. The remaining northern portion of the site was investigated by the Department of Environmental Protection (DEP) and was considered to be suitable for light industrial and/or commercial development, without encumbrances (DEP, 1996c).

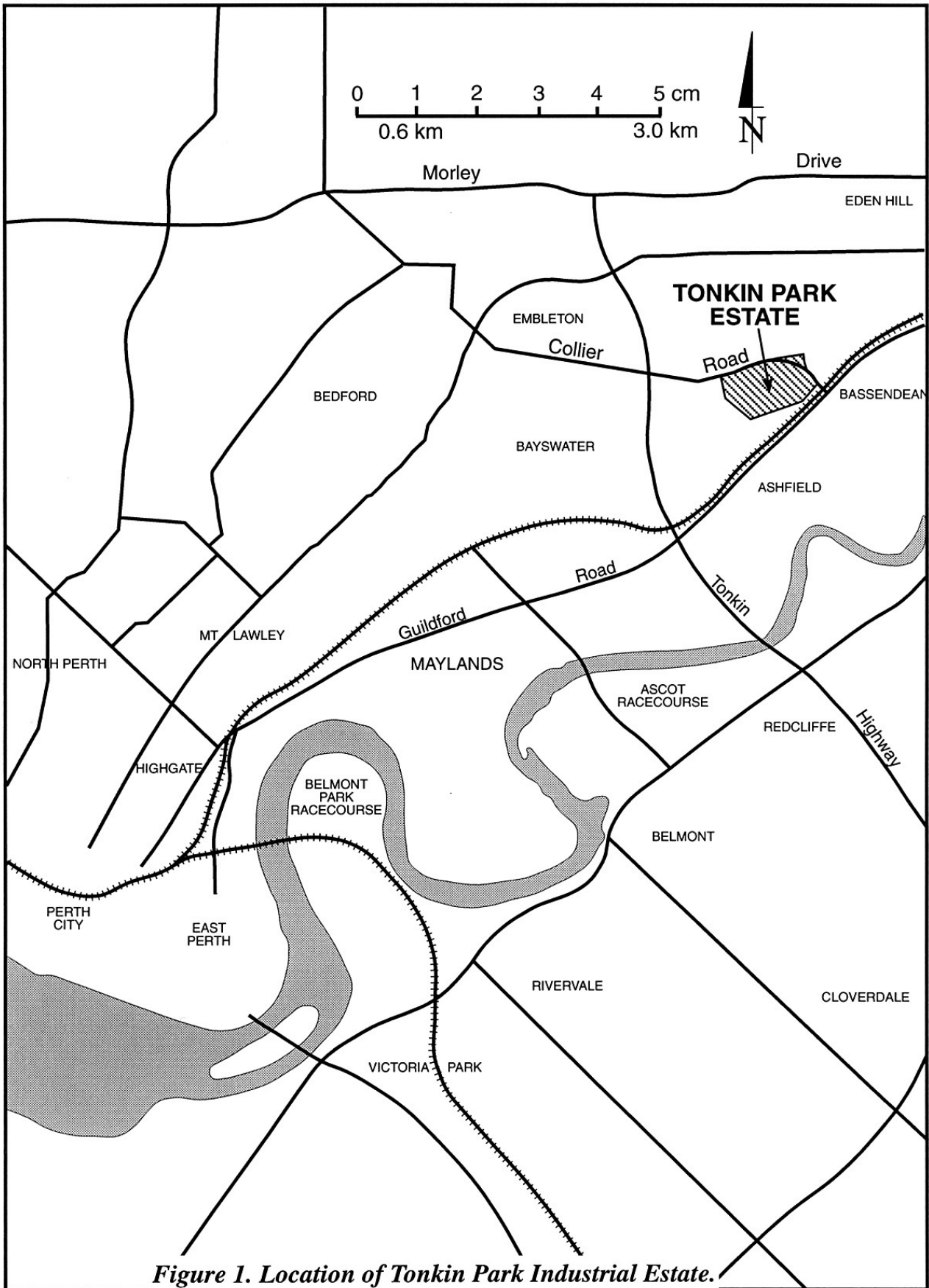


Figure 1. Location of Tonkin Park Industrial Estate.

In June 1998, Ridgepoynnt submitted a Section 46 request which was released for a four week public review. The request was for a change to Ministerial condition 4 on the Tonkin Park Stage II site to allow the proponent to manage the wastes by the use of one or a combination of remediation options, including on-site containment and disposal to landfill. The EPA's assessment was based mainly on the impact of the waste material on public health and the environment, through contamination of soil and groundwater.

In 2000, the Minister for the Environment approved Ridgepoynnt's Section 46 request subject to Ministerial conditions (Statement 539) included a condition (condition 8) which stated that "if the proponent does not substantially commence remediation of the Stage 2 site within three years following the date of publication of the statement, or within such further period as the EPA may by notice in writing to the proponent specify, then the approval as granted in Statement No.82 published on 25 October 1989 shall lapse and no further implementation of the proposal shall be authorised". Statement 539 is attached as Appendix 2.

In 2003, the proponent requested a further extension of time, which allowed the proponent until the 19 March 2004 to complete remediation of the site.

On 25 February 2004 Ridgepoynnt advised the EPA of contractual arrangements put in place for the supply of material and engineering services to complete the remediation works. Ridgepoynnt advised that due to unforeseen circumstances it was not able to obtain development approvals for the construction of the on-site containment cell within the timeframe it anticipated and that sourcing suitable clays for use in the cell construction was also causing some delay. On 4 March 2004, Ridgepoynnt advised that it would not meet the EPA's deadline of substantially commencing remediation by 19 March 2004 and indicated, by providing details of construction timelines, that the remediation would be completed by 31 October 2004. Accordingly, Ridgepoynnt submitted a Section 46 request that an extension of time be considered so that remediation works could be completed. On the 28 May 2004 the Minister for the Environment approved the Section 46 request subject to Ministerial conditions (Statement 651, Condition 8), which stated that "The proponent shall complete the remediation works by 31 October 2004". Statement 651 is attached as Appendix 2.

On 19 November 2004, Ridgepoynnt requested approval to revise the proposal , specifically relating to the dimensions of the containment cell and the date of completion for the remediation works. Citing difficulties in sourcing required quantities of suitable clay material for the cell, Ridgepoynnt requested that the footprint of the containment cell be reduced from 7 ha to 3.8 ha and the height increased from 25m AHD to 35.5m AHD (approximately 15m above adjacent land). The EPA has assessed the revised proposal relating to the change in dimensions of the containment cell at the level of Assessment on Referral Information (ARI). The EPA's report on this assessment is provided in Bulletin 1192.

The Minister for the Environment has also asked the EPA for section 46 advice on whether the existing conditions for the proposal, particularly relating to the timeline for implementation, ongoing groundwater monitoring and ongoing management of the cell should be changed. This is the subject of this Bulletin.

As such, the EPA are concurrently releasing two reports;

- this section 46 report on change to conditions ; and
- an ARI report on proposed changes to the cell dimensions

3. Review of Environmental Conditions

3.1 Introduction

The conditions to be revised are those specifically related to the timing of the proposal, the ongoing monitoring of groundwater quality and the ongoing management of the cell. In terms of the ongoing management of the cell, the main areas to be addressed are controlling development on or near the cell, monitoring and maintaining the integrity of the cell and the management of any leachate from the cell.

3.2 Conditions related to the timing of the proposal

Existing Condition 6-5 of Statement 539 specifies that the proponent shall complete the construction of the cell cap two years following the commencement of the filling of the cell. Existing Condition 8-2 of Statement 651 specifies that “the proponent shall complete the remediation works by 31 October 2004”. The proponent has advised that problems sourcing suitable clays for the project have caused completion to be delayed. The proponent has advised that the remediation of the site can be completed by August 2005.

The EPA recommends that Condition 6-5 should be deleted, as it is no longer relevant. Condition 8-2 should be changed to allow the proponent to complete the remediation works by 30 September 2005, providing a little flexibility in the proponent’s timeframe.

3.3 Conditions related to ongoing groundwater monitoring

Past monitoring has shown that the groundwater beneath the stockpile area is contaminated. The aim in implementing the proposal was to encapsulate as much of the contaminated material as possible, in order to isolate it from the groundwater system. The EPA understands that some of the contaminated material on the site was below the normal water table and while efforts have been made to collect as much of this contaminated material as possible and contain it in the cell, it has not been practicable to collect all of it and some residual contaminants are likely to remain below the cell. However, encapsulation of the majority of the contaminated material should result in improved groundwater quality in the area over time. Ongoing groundwater monitoring is required so that the integrity of the cell can be demonstrated and that any groundwater contamination from residual material is not resulting in a significant impact.

At present, there are five groundwater monitoring locations along the southern boundary of the Tonkin Park site, downgradient from it. Each of these locations has two wells installed next to each other, one sampling the shallow part of the aquifer and one sampling the deeper part of the aquifer. Originally there were three locations downgradient and two upgradient, however there are no longer any upgradient bores as past testing has shown no sources of off-site impact. The original bores were monitored from May 2002 until February 2004. Construction commenced in April 2004 resulted in the removal of the bores. The new bores began monitoring in December 2004 and the most recent samples are from April 2005. As a general rule, the most recent monitoring results have found a decline in concentration, compared to pre-remediation levels, for most of the parameters as well as a slight overall increase in pH. There was an increase in copper levels in the deep wells, with zinc and nickel staying fairly consistent and phosphorus and fluoride levels being highly variable. It was also noticed that there was a spike in some contaminant levels during the remediation process, this was especially pronounced in arsenic levels. The EPA notes that for definitive trends to be

established, long term monitoring data is needed. The proponent will provide a full groundwater assessment in the validation report for the site, which will be produced once the remediation is complete.

Existing Condition 4 of Statement 539 describes the Water Quality Management that the proponent is required to undertake. Conditions 4-3 and 4-4 describe the groundwater monitoring that is currently being undertaken and some minor adjustments need to be made to these conditions to ensure ongoing, adequate groundwater monitoring. The EPA believes that there is insufficient information to set a time limit for the groundwater monitoring at this stage. The frequency and length of monitoring will need to be reviewed, after analysis of results, periodically after the cell is completed.

The EPA recommends that existing Condition 4-3 and existing Condition 4-4 be modified to include identification of monitoring sites and the frequency and length of monitoring required.

3.4 Conditions relating to the ongoing management of the cell

The revised cell design (EPA Bulletin 1192) has implications for existing Condition 6 of Statement 539 which sets out the existing management of the cell; the revised design of the containment cell requires this condition to be revised and altered accordingly. Thus Condition 6 needs to include more detail regarding development over the cell, the integrity of the cell and management of leachate from the cell. There have been several new parts included in this Condition.

Controlling Development Over and Near the Containment Cell

Due to the increased height and decreased footprint of the cell, it is no longer appropriate for any development to occur on top of the cell cap as it may cause cracking of the cap. To allow access to inspect and repair the cell, there needs to be a track around the cell that is left undeveloped and the EPA recommend that this be 5m wide. The proponent has advised the EPA of their intention to put a sewerage pipe within this 5m strip and the EPA notes that approved services could be located within the 5m access track.

This is covered in new recommended condition 6-1 which prevents development on the cell or within five metres of it, except for approved services.

Monitoring and Maintaining the Integrity of the Containment Cell

In order for the containment cell to be effective in containing the waste and reducing groundwater contamination, the integrity of the cell must be maintained. The proponent is required to prepare a Cell Cap Inspection and Repair Plan (CCIRP) to achieve the objectives of identifying defects in the cell and implementing remedial actions in the event that defects occur. The types of defects that could occur include erosion of the surface material above the cap and cracking of the cap due to settlement of the cell contents. With the implementation of an effective CCIRP, any defects in the cell cap should be repaired before significant amounts of water could infiltrate through the cap.

To avoid erosion of the topsoil above the cell cap, surface runoff needs to be managed. This requires an adequate drainage system involving both surface and sub-surface drainage. Also, suitable vegetation, such as grasses and shallow rooted shrubs, should be planted on the topsoil. It should be noted that trees or other deep rooted vegetation could damage the cap. It is possible that seeds from other vegetation in the area could end up on the cell and the vegetation should be monitored to ensure that no trees establish on the topsoil.

The above points are covered in new recommended conditions 6-3, 6-4, 6-5, 6-6 and 6-7. Conditions 6-3 and 6-4 describe the required CCIRP, which would address monitoring of settlement and creep, monitoring of erosion of the surface material, monitoring of surface drainage and remedial actions to address any defects. Conditions 6-5 and 6-6 address the matter of maintaining vegetative cover, to reduce erosion, but not compromise the integrity of the cell. Condition 6-7 requires the proponent to maintain surface drainage to ensure that there is no erosion of the topsoil.

Management of Leachate from the Containment Cell

Any leachate from the cell needs to be monitored and managed appropriately. Leachate is an indicator of the performance of the containment cell and both the quality and the quantity of it should be monitored. Any leachate from the cell should be stored in an isolated, secure tank onsite. In order to avoid contamination of the groundwater, there should be measures to prevent the tank leaking or overflowing. The method of disposal will depend on the quality of the leachate, but may potentially be either onsite or offsite.

This is covered in new recommended conditions 6-8, 6-9, 6-10 and 6-11. Conditions 6-8 and 6-9 specify the requirement for the quantity and quality of leachate from the cell to be monitored and reported quarterly to the Department of Environment. Conditions 6-10 and 6-11 specify the requirement for leachate to be stored in an isolated tank and to be disposed of in an appropriate manner. Including leachate management in condition 6 removes the need for it to be addressed in the existing Condition 5 of Statement 539, the Environmental Management Programme.

As part of the Minister's section 46 request, advice on the need for an emergency response plan and contingency planning was sought. However, the EPA believes that the recommended revised conditions including a combination of leachate monitoring and a CCIRP is sufficient.

4. Conditions

Section 46(6) of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on whether or not the implementation conditions should be changed. In addition, the EPA may make recommendations as it sees fit.

A revised draft condition statement is provided at Appendix 3 and includes the recommended changes above.

5. Other advice

Subdivision

Subdivision approval was granted for the Tonkin Park Stage II area in April 2004. Under the existing subdivision approval, the containment cell is located on a single lot of approximately 7.3 hectares. Even though the footprint of the containment cell has been reduced to approximately 3.8 hectares, the EPA considers that would be inappropriate to further subdivide the lot containing the containment cell until monitoring has demonstrated acceptable performance and integrity of the cell. Retaining some undeveloped land around the cell will allow for contingency measures which may require space for cell remediation, leachate storage and management, and if necessary groundwater recovery and treatment.

The EPA considers that it will require about 5 years to demonstrate the performance and integrity of the cell, and further subdivision could be considered after this time.

6. Recommendations

The EPA submits the following recommendations to the Minister for the Environment:

1. That the Minister notes that this report is pursuant to Section 46(6) of *the Environmental Protection Act 1986* and thus is limited to consideration of proposed changes to the original conditions.
2. The Minister notes that the proposed changes relate to the proposal timing, groundwater monitoring, management of the containment cell and contingency planning.
3. That the Minister notes that the EPA has concluded that the revised proposal can be managed to meet the EPA's objectives, and thus not impose an unacceptable impact on the environment provided there is satisfactory implementation by the proponent of the amended conditions, including the proponent's commitments, as set out in Section 4.
4. The Minister imposes the amended conditions, commitments and procedures recommended in Appendix 3 of this report.

Appendix 1

References

- DEP 1996c. *Assessment of Soil Quality for Proposed Land development*: Letter from DEP to Environmental Risk Solutions.
- EPA, 1999. *Tonkin Park Stage II, Bassendean*. Environmental Protection Authority Bulletin 960, November 1999.
- EPA, 2004. *Tonkin Park Stage II, Bassendean, Change to Environmental Conditions*. Environmental Protection Authority Bulletin 1128, March 2004.
- EPA, 2005. *Revised Proposal, Containment Cell Dimensions, Industrial Development, Tonkin Park Bassendean (Stages 1 and 2)*. Environmental Protection Authority Bulletin 11xx, July 2004.
- GHD, 2005. *Tonkin Park Stage II Bassendean, Review of Modified Containment Cell*. Prepared by GHD Pty Ltd for the Environmental Protection Authority, May 2005.
- Ridgepoynt, 2005. *Revised Proposal to modify the Design of the Containment Cell at Tonkin Park (Stage 2)*. Prepared by Benchmark Consulting for Ridgepoynt Pty Ltd. Perth, Western Australia. May 2005.

Appendix 2

Statements of Environmental Conditions of Approval

Statement No. 539 (published on 24 February 2000)

Statement No. 651 (published on 28 May 2004)



MINISTER FOR THE ENVIRONMENT;
LABOUR RELATIONS

Statement No.

000539

STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)

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

- Proposal:** Remediation of wastes, as documented in schedule 1 of this statement to allow redevelopment of 42 hectares of land adjacent to Collier Road, Bassendean for industrial purposes.
- Proponent:** Centurion North West Pty Ltd
- Proponent Address:** 245 Collier Road, Bayswater, Western Australia 6053
- Assessment Number:** 1201
- Previous Assessment Numbers:** 126, 126-1
- Previous Statement Numbers:** Statement No. 82 (published on 25 October 1989)
Statement No. 224 (published on 27 February 1992)
- Report of the Environmental Protection Authority:** Bulletin 960
- Previous Reports of the Environmental Protection Authority:** Bulletin 397
Bulletin 588

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

1 Implementation

- 1-1 Subject to these conditions and procedures, the proponent shall implement the proposal as documented in schedule 1 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, those changes may be effected.

Published on
24 FEB 2000

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 employing one or a combination of the following remediation methods to manage the pyritic cinders wastes and other wastes (including rubble) located on the Stage 2 site:

- containment on-site;
- disposal at a landfill 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 contaminants at the Stage 2 site do not exceed the Dutch 'C' criteria recommended for industrial land use and specified in Schedule 3, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

4 Water Quality Management Plan

- 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 prepare a 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 the water quality of groundwater discharging to the Swan River via open drains meets the Australian and New Zealand Environment and Conservation Council water quality guidelines established for the protection of aquatic ecosystems.

The Water Quality Management Plan shall be prepared to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, 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 Environmental Protection 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 ensure that the water quality of surface and ground water is monitored to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Swan River Trust.
- 4-3 The proponent shall monitor water quality every three months for the first two years, and thereafter at a frequency of monitoring determined by the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Swan River Trust.

Note: Water samples to be analysed by a laboratory registered by the National Association of Testing Authorities and to 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.

- 4-4 The proponent shall report to the Environmental Protection Authority all water quality monitoring data collected on a three monthly basis, with significant results and trends clearly indicated during the initial two year monitoring period.
- 4-5 The proponent shall implement the Water Quality Management Plan required by condition 4-1 to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Swan River Trust.

5 Environmental Management Programme

- 5-1 Prior to commencement of remediation of the Stage 2 site, the proponent shall prepare an 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 Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Health Department of Western Australia.

This Programme shall address the following:

Waste Management

1. extent of contamination, volume and quantity of waste material to be contained in the 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;

Cell Design

4. final design details of 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 collection and treatment system;
9. leachate monitoring and treatment facility; and
10. stormwater drainage;

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;

Contingency Plan /Leachate Management

16. leachate management and monitoring procedures to ensure that any leachate generated from the waste does not adversely affect groundwater, addressing:
 - sample collection frequency, analytical protocol, parameters
 - estimation of leachate generation
 - reporting of monitoring results, and
 - contingency plans in the event of unacceptable generation of leachate;

Transport Management

17. 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 The proponent shall make the Environmental Management Programme available for comment by local catchment groups and the local government authority for a period of two weeks.

5-3 Prior to the commencement of any remediation of the Stage 2 site, the proponent shall implement the Environmental Management Programme required by condition 5-1, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection and the Water and Rivers Commission.

6 Containment Cell Management

6-1 In the event that the proponent remediates Stage 2 of the site wholly or partly by containment on site (see condition 3-1), the proponent shall ensure that any waste is stored in a containment cell designed to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Swan River Trust.

Note: The Department of Environmental Protection will have regard to "Guidelines for Cell Design and Construction" in schedule 4 (attached) when considering the acceptability of the design of the containment cell.

- 6-2 The proponent shall monitor the performance of the containment cell to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Swan River Trust.
- 6-3 The proponent shall monitor the quality of any leachate derived from the cell to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Swan River Trust.
- 6-4 The proponent shall ensure that there is no unacceptable release of contaminants to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Swan River Trust.
- 6-5 Within two years following the commencement of filling of the cell, the proponent shall complete the construction of a cell cap to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Water and Rivers Commission and the Swan River Trust.
- 6-6 Following completion of the construction of the cell cap, the proponent shall ensure that the integrity of the cell cap is not disturbed, and shall develop a protocol for site disturbance and a contingency plan for cap restoration following disturbance.
- 6-7 The proponent shall maintain, at all times, the integrity of the surface area above the containment cell, to the requirements of the Department of Environmental Protection.
- 6-8 Unless the proponent obtains the prior written permission of the Environmental Protection Authority, the proponent shall ensure that where development or the installation of services occurs above any containment cell, there is a minimum vertical clearance distance of one metre between the top of the cell cap and the lowest point of any service, drain, road or other infrastructure.
- 6-9 Prior to any development, the proponent shall make provision for the placement of memorials in conjunction with the Minister for Lands and the Department of Environmental Protection on the titles of lots over the containment cell, advising of the presence and details of the cell and its contents. Such memorials shall be to the requirements of the Minister for the Environment.

7 Proponent

- 7-1 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 respect of the proposal.
- 7-2 Any request for the exercise of that power of the Minister referred to in condition 7-1 shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the proposal in accordance with the conditions and procedures set out in the statement.
- 7-3 The proponent shall notify the Department of Environmental Protection of any change of proponent contact name and address within 30 days of such change.

8 Commencement of Stage 2 Site Remediation

- 8-1 If the proponent does not substantially commence remediation of the Stage 2 site within three years following the date of publication of this statement, or within such further period as the Environmental Protection Authority may by notice in writing to the proponent specify, then the approval as granted in statement no. 82 published on 25 October 1989 shall lapse and no further implementation of the proposal shall be authorised.

The Minister for the Environment will determine any question as to whether the Stage 2 site remediation has been substantially commenced.

- 8-2 The proponent shall make application to the Minister for the Environment for any extension of approval for the substantial commencement of the Stage 2 site remediation beyond three years at least six months prior to the expiration of the three year period referred to in condition 8-1.

9 Compliance Auditing

- 9-1 The proponent shall submit periodic Compliance Reports, in accordance with an audit program prepared in consultation between the proponent and the Department of Environmental Protection.
- 9-2 Unless otherwise specified, the Chief Executive Officer of the Department of Environmental Protection is responsible for assessing compliance with the conditions, procedures and commitments contained in this statement and for issuing formal, written advice that the requirements have been met.
- 9-3 Where compliance with any condition, procedure or commitment is in dispute, the matter will be determined by the Minister for the Environment.

CHERYL EDWARDES (Mrs) MLA
MINISTER FOR THE ENVIRONMENT

24 FEB 2000

Schedule 1

The proposal (1201)

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 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	<p>300 000 to 500 000 tonnes (or 150 000 to 250 000 cubic metres)</p>

Figures

Figure 1 Location of Tonkin Industrial Park

Figure 2 Location of Tonkin Park Stages 1 and 2 development sites, including lots 107 and 108.

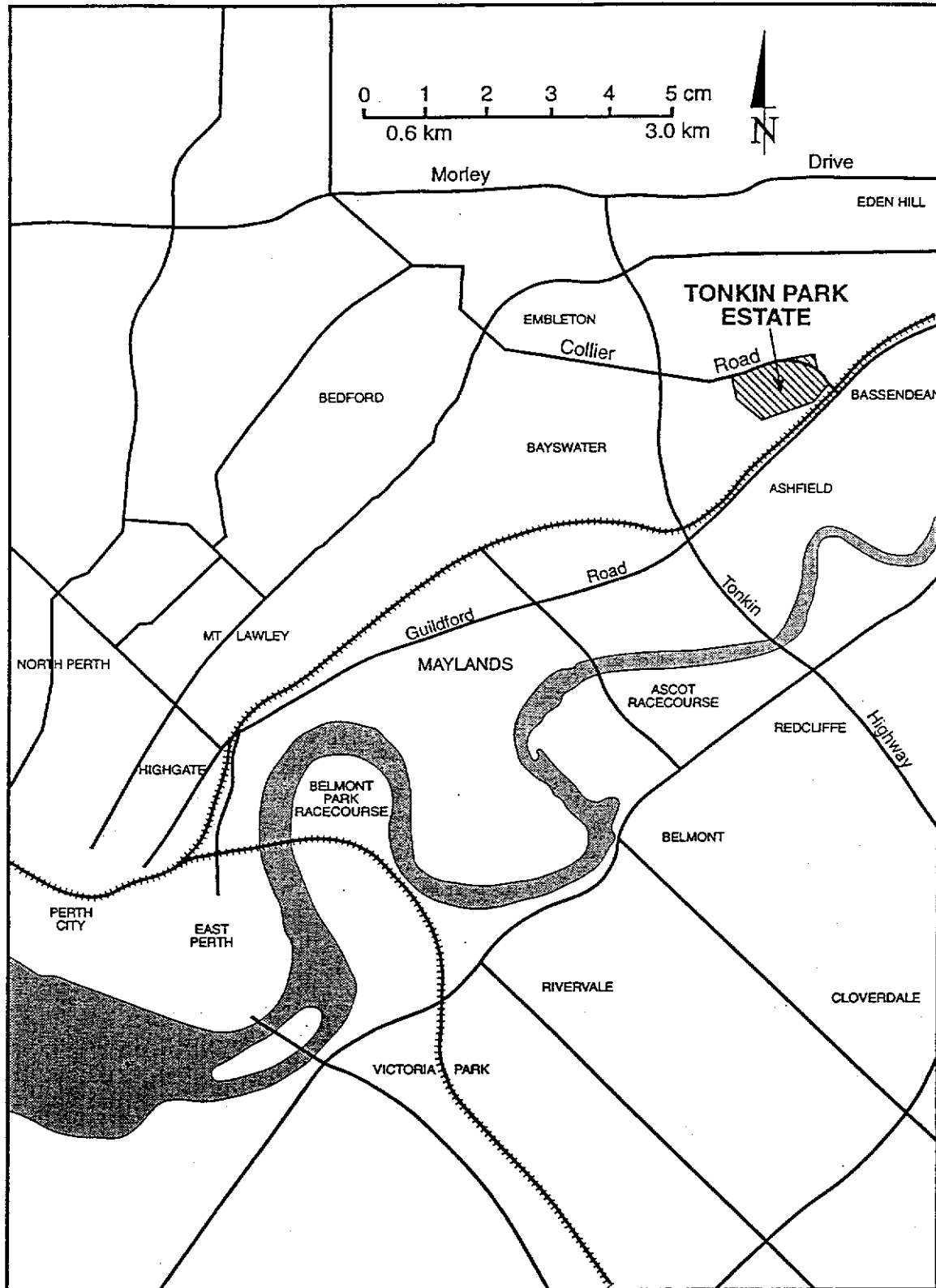


Figure 1. Location of Tonkin Park Industrial Estate.

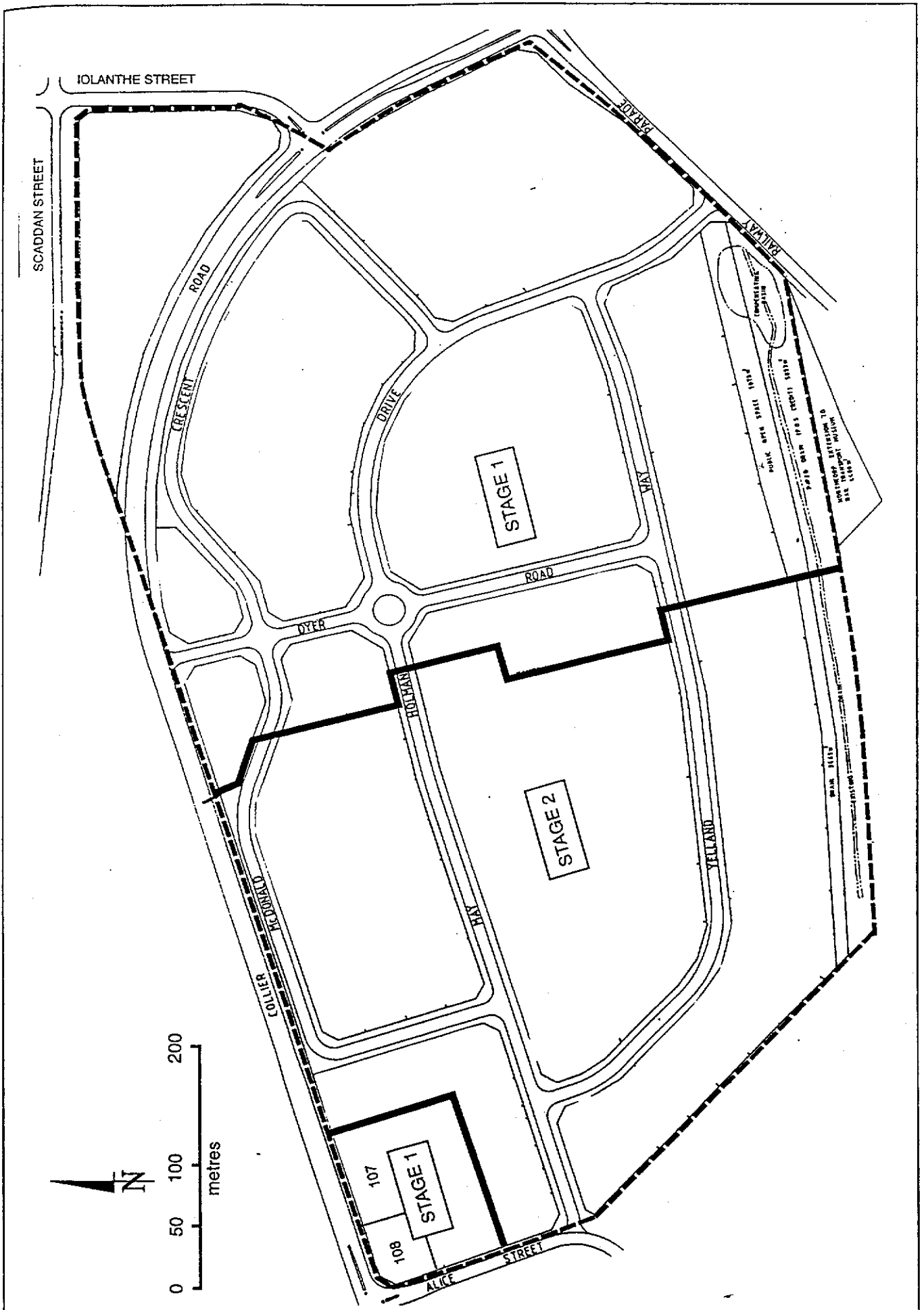


Figure 2. Location of Tonkin Park Stage I and II development sites.

**Proponent's Consolidated Environmental Management
Commitments**

20 November 1999

Note: This list of commitments consolidates, updates and replaces the
1989 commitments.

**INDUSTRIAL DEVELOPMENT,
TONKIN INDUSTRIAL PARK, BASSENDEAN
(STAGES 1 & 2)**

CENTURION NORTH WEST PTY LTD

Proponent's Environmental Management Commitments (1201)

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, DEP, Health Dept	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, DEP, Health Dept.	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, Health Dept	EPA
Rehabilitation	4	The proponent will complete remediation of the site	within 3 years of the publication of the EPA bulletin	to ensure the site is rehabilitated to the Dutch 'C' criteria and to a standard compatible with the intended land use.	WRC, Health Dept, DEP	EPA, Health Dept
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, Health Dept, DEP	EPA, Health Dept.

Proponent's Environmental Management Commitments (1201)

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, Health Dept, DEP	EPA, Health Dept.
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, DEP	EPA, Health Dept.
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, DEP, SRT, Health Dept	EPA, Health Dept
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, Health Dept, DEP	EPA, Health Dept

Proponent's Environmental Management Commitments (1201)

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.	Health Dept, WRC, DEP	EPA, Health Dept.
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.	Health Dept, WRC, DEP	EPA, Health Dept.
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, DEP	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, DEP	EPA
Monitoring Water Quality	15	The proponent will monitor the quality of rain water flowing from the containment cell's bitumen surface to the Chapman Street drain	during and after clean-up	to ensure that surface water discharged to the Swan River meets the water quality criteria established for maintenance of the fresh water ecosystem.	WRC, SRT	EPA

Proponent's Environmental Management Commitments (1201)

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.	DEP, Health Dept.	EPA

Proponent's Environmental Management Commitments (1201)

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.	DEP, Health Dept	DEP
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 Centurion North West Pty Ltd's consultants	during on-site excavation and construction work	to minimise dust emission.	DEP, Health Dept	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.	DEP, Health WA	EPA

Proponent's Environmental Management Commitments (1201)

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.	DEP, Health WA	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.	DEP, Health Dept, 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.	DEP, Health Dept, 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 (1201)

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, DEP	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, DEP	EPA

Abbreviations:

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

Schedule 3

Dutch Criteria for Soil contamination

- A Reference value
- B Indicative value for further investigation
- C Indicative value for cleaning-up

Soil mg/kg dry weight			
	A	B	C
Metals			
Lead (Pb)	50	150	600
Arsenic (As)	20	30	50
Copper (Cu)	50	100	500
Zinc (Zn)	200	500	3000
Mercury (Hg)	0.5	2	10

Source: Assink, JW and Van den Brink, WM (1986), "Dutch Criteria" from *Contaminated Soils, First International TNO Conference on Contaminated Soil*, 11-15 November 1985.

Requirements for Cell Design and Construction

14 July 1999

1. minimum distance of two metres between the cell base and the seasonal high water table;
2. backfill to be clean sand;
3. cell base to be low permeability material and have a hydraulic conductivity (k) of 1×10^{-9} m/s or better;
4. clay when used as a cell base to have a minimum thickness of 50 centimetres;
5. cell cap to be of low permeability material and have a hydraulic conductivity (k) of 1×10^{-9} m/s or better;
6. vertical or side barriers of cell to be a minimum thickness of 50 centimetres;
7. cell to include a graded base for leachate collection, treatment and monitoring facility;
and
8. final surface above cell cap to be graded for adequate drainage away from cell;



MINISTER FOR THE ENVIRONMENT

Statement No.

000851

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**INDUSTRIAL DEVELOPMENT,
TONKIN INDUSTRIAL PARK, BASSENDEAN (STAGES 1 & 2)**

Proposal: Remediation of wastes, as documented in schedule 1 of the statement published on 24 February 2000 to allow redevelopment of 42 hectares of land adjacent to Collier Road, Bassendean for industrial purposes.

Proponent: Ridgepoynt Pty Ltd

Proponent Address: 245 Collier Road, Bayswater WA 6053

Assessment Number: 1517

Previous Assessment Numbers: 126, 126-1 and 1201

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)

Report of the Environmental Protection Authority: Bulletin 1128

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

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is subject to the conditions and procedures contained in Ministerial Statement No. 539 (24 February 2000), as amended by the following:

Published on

28 MAY 2004

Condition 8 (Commencement of Stage 2 Site Remediation) of Statement No. 539 is deleted and the following condition is inserted:

8 Site Remediation

8-1 The proponent shall provide progress reports on the remediation to the Department of Environmental Protection 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*, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

8-2 The proponent shall complete the remediation works by 31 October 2004.

A handwritten signature in cursive script that reads "Judy Edwards".

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT

28 MAY 2004

Appendix 3

Recommended Environmental Conditions

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**INDUSTRIAL DEVELOPMENT
TONKIN INDUSTRIAL PARK, BASSENDEAN (STAGES 1 & 2)**

Proposal: Remediation of wastes, as documented in schedule 1 of the statement published on 24 February 2000 to allow redevelopment of 42 hectares of land adjacent to Collier Road, Bassendean for industrial purposes.

Proponent: Ridgepoynt Pty Ltd

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

Assessment Number: 1557

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 397, 588, 960 and 1128.

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

1 Implementation

1-1 Subject to these conditions and procedures, the proponent shall implement the proposal as documented in schedule 1 of this statement.

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 contaminants at the Stage 2 site do not exceed the criteria specified in schedule 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 prepare a 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 the water quality of groundwater discharging to the Swan River via open drains meets the Australian and New Zealand Environment and Conservation Council water quality guidelines established for the protection of aquatic ecosystems.

This 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 5 years.

The water samples shall be analysed by a laboratory registered by the National Association of Testing Authorities and 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.

After 5 years and subject to the results of the water quality monitoring, the Minister may require the proponent to alter the frequency of monitoring or allow the monitoring to cease. The Department of Environment will conduct a review of the results and the monitoring periodically.

- 4-4 The proponent shall report 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 Water Quality Management Plan required by condition 4-1.
- 4-6 The proponent shall make the 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 prepare an 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.

This 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

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 Environmental Management Programme required by condition 5-1.

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

6 Containment Cell Management

Controlling Development Over or Near the Containment Cell

- 6-1 There shall be no development over or within five metres of the containment cell, except for approved services.
- 6-2 Prior to any development on the approved subdivision of stage II, the proponent shall make provision for the placement of memorials 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 memorials shall be to the requirements of the Minister for the Environment.

Monitoring and Maintaining the Integrity of the Containment Cell

- 6-3 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.
- 6-4 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 6-3, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 6-5 The proponent shall maintain grass cover, or shallow-rooted groundcover, above the cell cap to ensure that there is no significant wind or water erosion of the topsoil.
- 6-6 The proponent shall ensure that no trees establish over the containment cell.
- 6-7 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

- 6-8 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 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.

- 6-9 The proponent shall report the results of leachate monitoring required by condition 6-8 quarterly, at the beginning of June, September, December and March each year, to the Department of Environment and these results shall be made publicly available.
- 6-10 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.
- 6-11 The proponent shall not permit any leachate to overflow from the leachate storage tank referred to in condition 6-10.

7 Proponent

- 7-1 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.
- 7-2 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.
- 7-3 The proponent shall notify the Department of Environment of any change of proponent contact name and address within 30 days of such change.

8 Site Remediation

- 8-1 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*, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 8-2 The proponent shall complete the remediation works by 30 September 2005. (Note: “complete remediation” means “complete construction of the containment cell, the placement of topsoil and landscaping above the cell

9 Compliance Auditing

- 9-1 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.
- 9-2 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 advice that the requirements have been met.
- 9-3 Where compliance with any condition, procedure or commitment is in dispute, the matter will be determined by the Minister for the Environment.

Schedule 1

The proposal (1557)

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 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)

Figures

Figure 1 Location of Tonkin Industrial Park

Figure 2 Location of groundwater monitoring bores

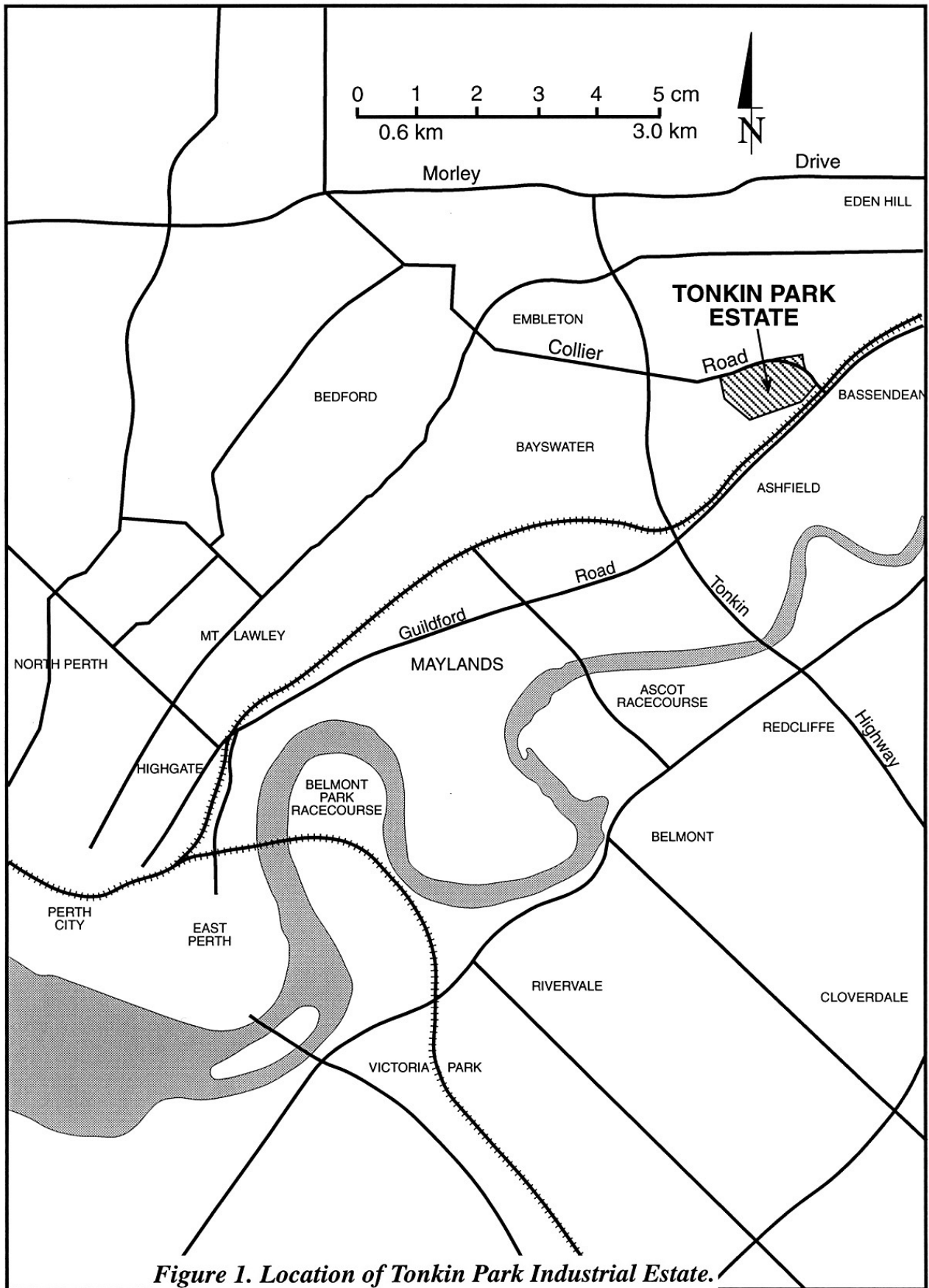
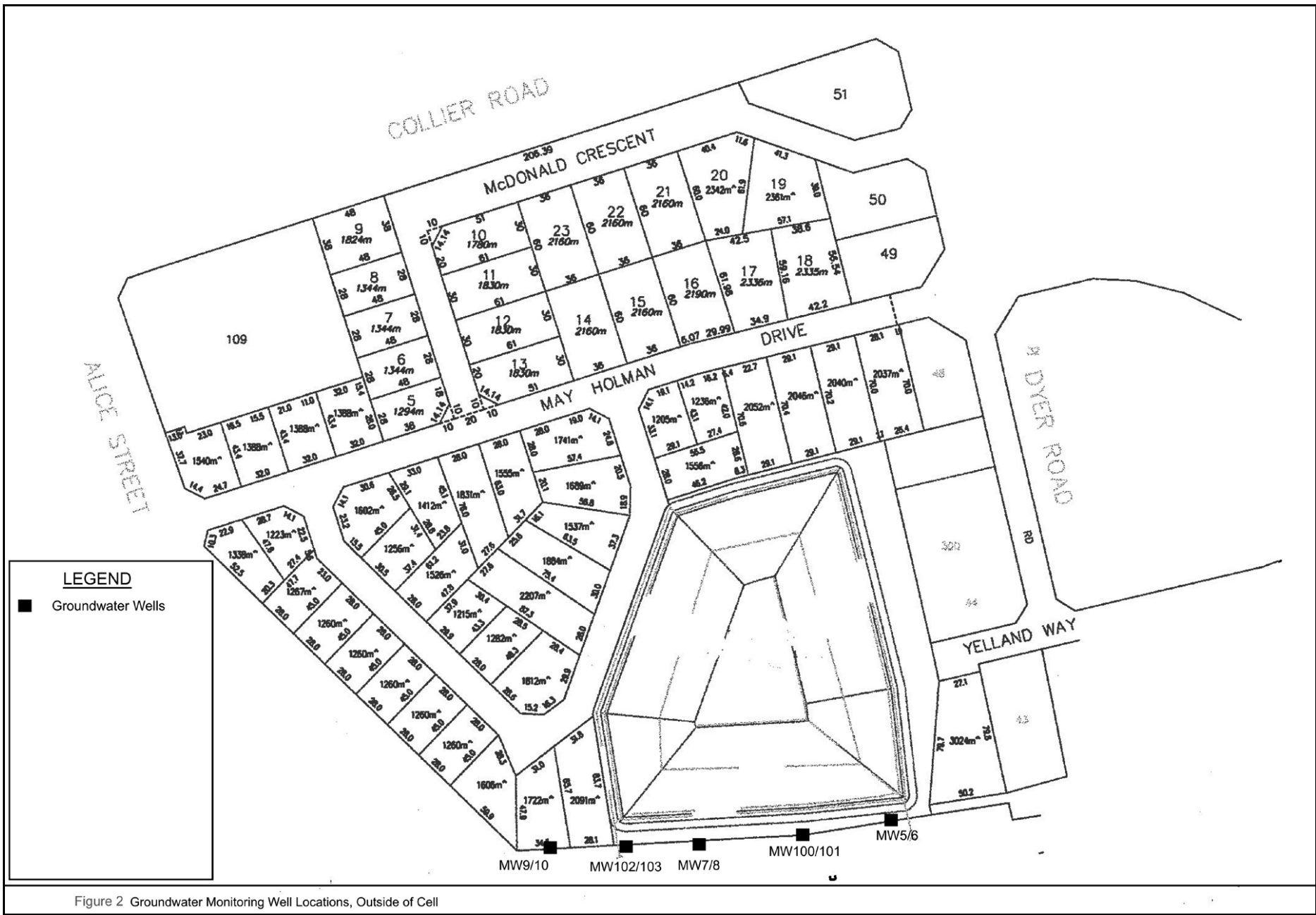


Figure 1. Location of Tonkin Park Industrial Estate.



COLLIER ROAD

MCDONALD CRESCENT

ALICE STREET

MAY HOLMAN DRIVE

DYER ROAD

YELLAND WAY

MW9/10 MW102/103 MW7/8 MW100/101 MW5/6

LEGEND

■ Groundwater Wells

Figure 2 Groundwater Monitoring Well Locations, Outside of Cell