ROCKINGHAM INDUSTRY ZONE

COMPLIANCE ASSESSMENT REPORT 2021-2022
MINISTERIAL STATEMENTS 863, 973, 995 AND 1043

Prepared for:	DevelopmentWA
Report Date:	24 May 2022
Version:	1
Report No.	2022-679

pgv ENVIRONMENTAL

Contents

Statement of Compliance

1. Proposal and Proponent Details

Proposal Title	1. Rockingham Industrial Zone Strategic Environmental Assessment (Formerly IP14) 2. Subdivision of Lot 500 Patterson Road, East Rockingham 3. Subdivision of Lot 21 Alumina Road, East Rockingham 4. Final Superlot Subdivision (Various Lots, Patterson Road, Rockingham – WAPC Subdivision Application 153179)
Statement Number	1. Ministerial Statement 863 2. Ministerial Statement 973 3. Ministerial Statement 995 4. Ministerial Statement 1043
Proponent Name	*Western Australian Land Authority trading as DevelopmentWA*
Proponent's Australian Company Number (where relevant)	

2. Statement of Compliance Details

Reporting Period	*27/05/21* to *26/05/22*

Implementation phase(s) during reporting period (please tick ✓ relevant phase(s))							
Pre-construction	✓	Construction	✓	Operation	✓	Decommissioning	

Audit Table for Statement addressed in this Statement of Compliance is provided:	2
The Audit Table is Section 5 of the Compliance Assessment Report	

Were all implementation conditions and/or procedures of the Statement complied with within the reporting period? (please tick ✓ the appropriate box)			
No (please proceed to Section 3)		Yes (please proceed to Section 4)	✓

3. Details of Non-compliance(s) and/or Potential Non-compliance(s)

Not Applicable

4. Proponent Declaration

I, Frank Maura, CEO *(full name and position title)* declare that I am authorised on behalf of Development WA (being the person responsible for the proposal) to submit this form and that the information contained in this form is true and not misleading.

Signature: F. Maura Date: 24/5/22

Please note that:

- it is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give or cause to be given information that to his knowledge is false or misleading in a material particular; and
- the General Manager of the DWER has powers under section 47(2) of the *Environmental Protection Act 1986* to require reports and information about implementation of the proposal to which the statement relates and compliance with the implementation conditions.

5. Submission of Statement of Compliance

One hard copy and one electronic copy (preferably PDF on CD or thumb drive) of the Statement of Compliance are required to be submitted to the Chief Executive Officer, DWER, marked to the attention of Manager, Compliance (Ministerial Statements).

Please note, the DWER has adopted a procedure of providing written acknowledgment of receipt of all Statements of Compliance submitted by the proponent, however, the DWER does not approve Statements of Compliance.

6. Contact Information

Queries regarding Statements of Compliance, or other issues of compliance relevant to a Statement may be directed to Compliance Branch, DWER:

Manager, Compliance (Ministerial Statements)

Department of Water and Environmental Regulation

Postal Address:	8 Davidson Terrace JOONDALUP WA 6027
Phone:	(08) 6364 7000
Email:	compliance@dwer.wa.gov.au

7. Post Assessment Guidelines and Forms

Post assessment documents can be found at www.epa.wa.gov.au.

List of Attachments

Plates

Appendices

1. INTRODUCTION

1.1 Background

The Rockingham Industry Zone (RIZ) is an area zoned for industrial development adjacent to the Kwinana Industrial Area.

The portions of the RIZ with significant environmental features were assessed by the Environmental Protection Authority (EPA) as a Strategic Environmental Assessment (SEA) (Report Number 1390). The SEA was approved by the Minister for the Environment in 2011 (Ministerial Statement 863 – Appendix 1) with several conditions.

Condition 4-1 of Ministerial Statement 863 required the proponent to prepare and submit a Compliance Assessment Plan (CAP) to the satisfaction of the CEO of the Office of the Environmental Protection Authority (OEPA). The CAP was approved by the CEO of the OEPA on 16 February 2012 as report in previous compliance reports.

The CAP outlines the following:

1 the frequency of compliance reporting;
2 the approach and timing of compliance assessments;
3 the retention of compliance assessments;
4 the reporting of potential non-compliances and corrective actions taken;
5 the table of contents of compliance reports;
6 the public availability of compliance reports.

The timing and frequency of compliance reporting is set out in Condition 4-6 of Ministerial Statement 863 which states as follows:

> *The proponent shall submit a compliance assessment report annually from the date of the Minister for Environment's notice under section 45A(2) of the Environmental Protection Act 1986 addressing the previous twelve month period or other period as agreed by the Chief Executive Officer of the Office of the Environmental Protection Authority. The compliance assessment report shall:*
>
> *1. Be endorsed by the proponent's Managing Director or a person, approved in writing by the Office of the Environmental Protection Authority, delegated to sign on the Managing Director's behalf;*
>
> *2. Include a statement as to whether the proponent has complied with the conditions;*
>
> *3. Identify all potential non-compliances and describe corrective and preventative actions taken;*
>
> *4. Be made publicly available in accordance with the compliance assessment plan; and*
>
> *5. Indicate any proposed changes to the Compliance Assessment Plan required by Condition 4-1.*

In accordance with Condition 4-6 of Ministerial Statement 863 submissions of compliance reports will be undertaken on an annual basis following the submission of the first report. The Compliance Assessment Report for 2021-2022 has been prepared by PGV Environmental.

1.2 Changes in Approval

A request for a change to the area covered by the Ministerial Statement was made and approved in Attachment 1 which was issued on 4 October 2013 (Appendix 2). A second request for additional land in the area assessed by the SEA was granted and Attachment 2 to Ministerial Statement 863 includes an additional 197.54ha to the area in the Rockingham Industry Zone included under the approval of the SEA (Appendix 3). The Conservation Area of 91ha was included in Table 2 of the Attachment.

The Conservation Area originally incorporated a parcel of land to the south that is designated as a Public Transport Authority (PTA) rail corridor. At the time that the proposed development in the RIZ was undergoing assessment and approval it was understood that the rail was not to be constructed on that alignment, in favour of one to the north of the Conservation Area.

The PTA informed DevelopmentWA that the rail corridor on the southern boundary of the RIZ may still be required. As a result of the PTA's plans to maintain a possible future southern rail link, the rail corridor needed to be removed from the Conservation Area. In exchange, additional areas were incorporated into the Conservation Area in the north-west corner. The change to the Conservation Area boundary was approved on 11 November 2015 and the changes shown in Attachment 3 of Ministerial Statement 863 (Appendix 4).

1.3 Derived Proposals

A subdivision was referred to the EPA as a derived proposal for Lot 500 Patterson Road, East Rockingham. The subdivision was approved as a derived proposal by the Minister for the Environment on 24 April 2014 pursuant to section 45A(2) of the EP Act. The proposal triggered an amendment to Ministerial Statement 863 under Section 46 of the EP Act, detailed in Ministerial Statement 973 (MS 973) (Appendix 5). The Compliance Assessment Report also addresses compliance with MS 973.

A second proposal to subdivide Lot 21 Alumina Road, East Rockingham was referred to the EPA as a derived proposal in accordance with the requirements of the Statement in November 2014. The subdivision was approved as a derived proposal by the Minister for the Environment on 17 December 2014 pursuant to section 45A(2) of the EP Act. The proposal also triggered an amendment to Ministerial Statement 863 under Sections 46 of the EP Act, detailed in Ministerial Statement 995 (MS 995) (Appendix 6). The Compliance Assessment Report addresses compliance with MS 995.

A final Derived Proposal, showing a superlot subdivision of the remainder of the RIZ was referred in May 2016 and declared as the Final Derived Proposal on 6 July 2016. As per the previous Derived Proposals, Ministerial Statement 1043 was issued for the superlot subdivision area (Appendix 7).

2. CURRENT STATUS

Development within the RIZ SEA area commenced on 14 July 2014. During the 2021-2022 compliance period, clearing was undertaken in the Development Area, shown in part by comparison of Plate 1 from 4 June 2021 and Plate 2 from May 2022 (Landgate, 2021). The cleared area is the extension of the Co-operative Bulk Handling (CBH) site on the western side of the RIZ (5 ha) (Plate 2 in green). Additionally, a small area in the south-eastern corner 0.13ha was cleared, associated with the works on the adjoining Lot 1 Day Road which is outside the SEA area (Plate 2 in yellow).

Plate 1: Aerial photography from 4 June 2021 (Landgate, 2021)

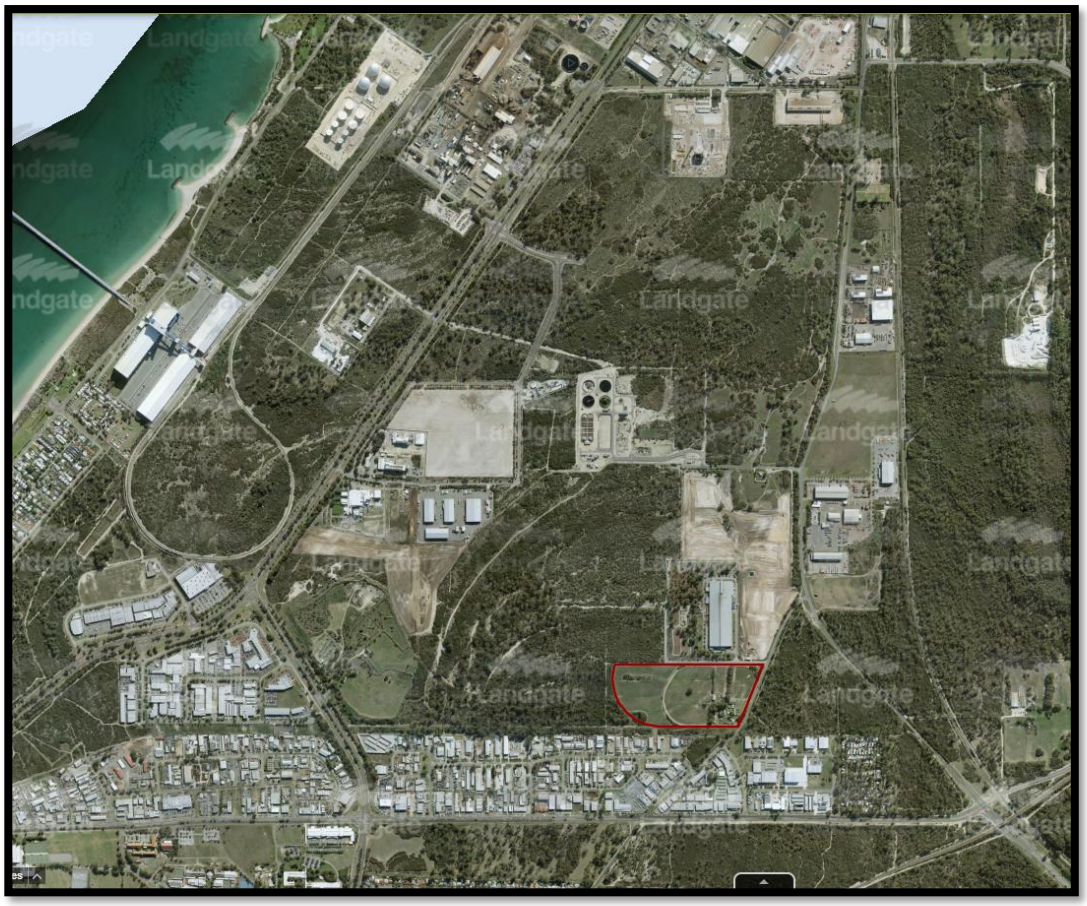


Plate 2: Aerial photography from 6 May 2022 (Soar, 2022)

Additionally, some clearing of understorey for fire mitigation was undertaken in various locations as per a notice issued by the City of Rockingham under the *Bushfires Act 1954* (Plate 3 and 4; Appendix 8). The removal was mostly weed species such as Brazilian Pepper and African Lovegrass. The native overstorey and most of the understorey was retained (Plate 3 and 4) (Appendix 8).

Plate 3: Ward Road Fire Mitigation

Plate 4: Office Road Fire Mitigation

Details of the clearing methodology and environmental management are outlined in the relevant sections following.

3. COMPLIANCE

3.1 M1-1

The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the Environmental Protection Act 1986 is responsible for the implementation of the proposal.

DevelopmentWA remains the responsible party for the implementation of the proposal.

3.2 M1-2

The proponent shall notify the Chief Executive Officer of the Department of Environment and Conservation of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

There has been no change in the name or address of the proponent in the 2021-2022 Compliance period.

3.3 M2-1

The authorisation provided for in this statement to request a derived proposal under section 39B(1) of the Environmental Protection Act 1986 shall lapse and be void 20 years after the date of this statement.

The Condition is deleted under Ministerial Statement 973 for the subdivision of Lot 500 Patterson Road, East Rockingham, Ministerial Statement 995 for the Subdivision of Lot 21 Alumina Road, East Rockingham and Ministerial Statement 1043 for the final superlot subdivision. The entire area of the RIZ is covered by these three Ministerial Statements. Therefore, there are no areas in the RIZ that are subject to this condition.

3.4 M3-1

The authorisation to implement a derived proposal provided for in this statement shall lapse and be void five years after the declaration of the Environmental Protection Authority under section 39B(3) of the Environmental Protection Act 1986 that the proposal is a derived proposal.

The subdivision of Lot 21 Alumina Road and Lot 500 Patterson Road, East Rockingham and the final Superlot Subdivision was declared a derived proposal by the Minister for the Environment and subsequently approved by the WAPC, thereby the derived proposal (subdivision) is implemented within 5 years of the Ministerial Statement. This condition is deemed Completed.

3.5 M4-1

The proponent shall prepare and submit a compliance assessment plan to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority at least 6

months prior to the first compliance report required by condition 4-6 or prior to the commencement of future proposals, whichever is sooner.

The Compliance Assessment Plan was submitted to the OEPA on 20 January 2012 and approved on 16 February 2012. The Condition is deemed Completed.

3.6 M4-2

The proponent shall implement and maintain to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority the compliance assessment plan required by condition 4-1. The compliance assessment plan shall indicate:

1. *the frequency of compliance reporting;*
2. *the approach and timing of compliance assessments;*
3. *the retention of compliance assessments;*
4. *the reporting of potential non-compliances and corrective actions taken;*
5. *the table of contents of compliance reports; and*
6. *the public availability of compliance reports.*

The Compliance Assessment Plan is being implemented in the preparation of this report.

3.7 M4-3

The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.

The Compliance Assessment Report for the 2021-2022 period has been prepared in accordance with this condition.

3.8 M4-4

The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the Chief Executive Officer of the Office of the Environmental Protection Authority.

The 2021-2022 Compliance Assessment Report will be retained electronically using DevelopmentWA's document management system and report library and made publicly available on DevelopmentWA's website (https://developmentwa.com.au/projects/industrial-and-commercial/rockingham-industry-zone/environmental-compliance). Information lodged in the document management system and associated library is backed up and will be retained for the duration of the project.

3.9 M4-5

The proponent shall advise the Chief Executive Officer of the Office of the Environmental Protection Authority of any potential non-compliance as soon as practicable.

Within the 2021-2022 reporting period there have been no non-compliances.

3.10 M4-6

The proponent shall submit a compliance assessment report annually from the date of the Minister for Environment's notice under section 45A(2) of the Environmental Protection Act 1986 addressing the previous twelve month period or other period as agreed by the Chief Executive Officer of the Office of the Environmental Protection Authority. The compliance assessment report shall:

1. *be endorsed by the proponent's Managing Director or a person, approved in writing by the Office of the Environmental Protection Authority,*
2. *delegated to sign on the Managing Director's behalf;*
3. *include a statement as to whether the proponent has complied with the conditions;*
4. *identify all potential non-compliances and describe corrective and preventative actions taken;*
5. *be made publicly available in accordance with the compliance assessment plan; and*
6. *indicate any proposed changes to the compliance assessment plan required by condition 4-1.*

The Compliance Assessment Report 2021-2022 has been prepared to satisfy the requirements of this condition.

3.11 M5-1

3.11.1 MS863

Within 6 months of the date of the statement the proponent shall fence the Conservation Area, as delineated by Figure 1 and Table 2 of the statement, to assist in preventing unauthorised access, and shall maintain the fencing until such time as the land is ceded to the Conservation Commission of Western Australia.

The condition was deemed to be complete in 2012. The area added to the Conservation Area in 2016 was fenced in June 2016. The requirements of this condition have been replaced by condition 5-1 in MS973, 995 and 1043.

3.11.2 MS973

The proponent shall maintain the fence that it established around the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, until such time as the Conservation Area is ceded to the Conservation Commission of Western Australia.

The fence on the boundary of the subdivision that is relevant to MS973 has continued to be damaged and is repaired regularly. The fence will be intact at the time of handover.

3.11.3 MS995

The proponent shall maintain the fence that it established around the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, until such time as the Conservation Area is ceded to the Conservation Commission of Western Australia.

The fence relevant to MS995 has been repaired as per the part subject to MS973. The fence will be intact at the time of handover.

3.11.4 MS1043

The proponent shall maintain the fence that it established around the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, until such time as the Conservation Area is ceded to the Conservation and Parks Commission.

The fence relevant to MS1043 has been repaired as per the part subject to MS973. The fence will be intact at the time of handover.

3.12 M5-2

3.12.1 MS863

Within 6 months of the date of the statement the proponent shall remove all dumped rubbish from the Conservation Area and thereafter the proponent shall maintain the Conservation Area free of rubbish until such time as the land is ceded to the Conservation Commission of Western Australia.

The initial rubbish removal was completed in March 2012. The condition was deemed to be complete in 2012. The requirements of this condition have been replaced by condition 5-2 in MS973, 995 and 1043.

3.12.2 MS973

The proponent shall maintain the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, free of rubbish until such time as the land is ceded to the Conservation Commission of Western Australia.

Access into the Conservation Area has been reduced through the construction of the fence and installation of limestone boulders along the fence line. Rubbish inspections have determined that the fence has significantly reduced the amount of illegal rubbish dumped within the Conservation Area. The site is inspected to record any additional rubbish that has been dumped on the site and rubbish removal. Management including asbestos removal is ongoing with the removal of flytipping and asbestos being undertaken. DevelopmentWA has committed to a final rubbish removal prior to handing over the Conservation Area to remove any newly dumped rubbish.

3.12.3 MS995

The proponent shall maintain the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, free of rubbish until such time as the land is ceded to the Conservation Commission of Western Australia.

As per MS995 rubbish removal is ongoing, with removal of dumped rubbish and asbestos undertaken in the compliance period as outlined above. Removal of any newly dumped rubbish will be scheduled prior to handover.

3.12.4 MS1043

The proponent shall maintain the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, free of rubbish until such time as the land is ceded to the Conservation and Parks Commission.

As per MS1043 rubbish removal is ongoing, with removal of dumped rubbish and asbestos undertaken in the compliance period as outlined above. Removal of any newly dumped rubbish will be scheduled prior to handover.

3.13 M5-3

Within two years of the date of this statement the proponent shall prepare an Initial Conservation Area Management Plan for the Conservation Area to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation. The objective of this Initial Conservation Area Management Plan is to improve the condition of the Conservation Area to a level suitable for incorporation into the Conservation Estate.

The Initial Conservation Area Management Plan will address:

1. *Protecting and rehabilitating the threatened ecological community Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain;*
2. *Maintenance of fencing of the area to control access to designated areas within the Conservation Area;*
3. *Design and implementation of appropriate monitoring of the vegetation within the Conservation Area, including the threatened ecological community Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain;*
4. *Design and implementation of appropriate monitoring of hydrology including groundwater levels and quality and contingencies in the event of unacceptable hydrological impacts;*
5. *Maintaining the Conservation Area free of dumped rubbish;*
6. *Rehabilitation of degraded areas within the Conservation Area including tracks not required for strategic access;*
7. *The control of feral animal populations in the Conservation Area;*
8. *Weed control in the Conservation Area;*
9. *Fire prevention and response;*
10. *Enhancement of the fauna habitat in the area by providing harvested and artificial breeding infrastructure for significant fauna;*
11. *Using artificial polishing drainage basins outside of the Conservation Area, for the re-infiltration of stormwater into the Conservation Area; and*
12. *Completion criteria for handover to another management authority.*

The Initial Conservation Area Management Plan was approved by the OEPA on 23 December 2013. The Management Plan is common to the conditions of both State and Federal approvals and was approved on 23 December 2013 by the OEPA.

3.14 M5-4

3.14.1 MS863

The proponent shall implement the Initial Conservation Area Management Plan required by Condition 5-3 until the Conservation Area is ceded to the Conservation Commission of Western Australia.

The Initial Conservation Area Management Plan has been successfully implemented and is discussed in detail in Section 4.1.

3.14.2 MS973, 995 and 1043

The proponent shall implement the Initial Conservation Area Management Plan that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO, until the Conservation Area is ceded to the Conservation Commission of Western Australia (973 and 995).

The proponent shall implement the Initial Conservation Area Management Plan that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO, until the Conservation Area is ceded to the Conservation and Parks Commission (1043).

The Initial Conservation Area Management Plan has been successfully implemented and is discussed in detail in Section 4.1.

3.15 M5-5

3.15.1 MS863

When the completion criteria of Condition 5-3-12 are met, or within two years of a written request from the Department of Environment and Conservation, the proponent will arrange to cede the Conservation Area to the Conservation Commission of Western Australia.

Compliance with this condition is currently underway with DBCA acknowledging the meeting of the completion criteria. Final subdivision to create the lot boundaries for formal handover is currently being undertaken.

3.15.2 MS973, 995 and 1043

When the completion criteria detailed in the Initial Conservation Area Management Plan referred to in condition 5-4 are met, or within two years of a written request from the Department of Parks and Wildlife, the proponent will arrange to cede the Conservation Area to the Conservation Commission of Western Australia (973 and 995).

When the completion criteria in Section 5.3 of the Initial Conservation Area Management Plan referred to in condition 5-4 are met, or within two years of a written request from the Department of Parks and Wildlife, the proponent will arrange to cede the Conservation Area to the Conservation and Parks Commission (1043).

Compliance with this condition is currently being undertaken as outlined above.

3.16 M5-6

Within one year of ceding land (pursuant to Condition 5-5) the proponent shall prepare a Conservation Area Management Plan to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation. The objective of this Conservation Area Management Plan is to guide continued management of the conservation values of the area.

The Conservation Area Management Plan will address:

1. *Protecting and rehabilitating the threatened ecological community Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain;*
2. *Maintenance of fencing of the area to control access to designated areas within the Conservation Area;*
3. *Ongoing vegetation monitoring of the threatened ecological community Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain;*
4. *Ongoing monitoring of hydrology including groundwater levels and quality and implementation of contingencies in the event of unacceptable hydrological impacts;*
5. *Management of rehabilitated areas within the Conservation Area*
6. *The control of feral animal populations in the Conservation Area;*
7. *Weed control in the Conservation Area;*
8. *Fire prevention and response;*
9. *Enhancement of the fauna habitat in the area by providing harvested and artificial breeding infrastructure for Carnaby's Cockatoos; and*
10. *Using artificial polishing drainage basins outside of the Conservation Area for the re-infiltration of stormwater into the Conservation Area.*

The CAMP has been prepared and is currently undergoing review in consultation with DBCA.

3.17 M6-1

Within two years of the date of this statement the proponent shall prepare a Water Management Strategy to the requirements of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation and the Department of Water.

The Water Management Strategy will address:

1. *Managing stormwater as a resource;*
2. *Maintaining stormwater and groundwater quality to pre-development levels;*
3. *Maintaining hydrology including water quality and levels of natural ecosystems;*
4. *Retaining or improving groundwater balance;*
5. *Managing the salt wedge / Cockburn Sound interface;*
6. *Creating industrial landscapes as ecologically functioning units; and*
7. *Integrating Water Sensitive Urban Design within landscape at site, precinct and district scales.*

The Water Management Strategy was approved by the OEPA on 23 December 2013.

3.18 M6-2

3.18.1 MS863

The proponent shall implement the Water Management Strategy required by Condition 6-1

The implementation of the monitoring in the Water Management Strategy is discussed in Section 4.2

3.18.2 MS973, 995 and 1043

The proponent shall implement the Water Management Strategy that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO.

The implementation of the monitoring in the Water Management Strategy is discussed in Section 4.2

3.19 M7-1

Within two years of the date of this statement the proponent shall prepare an Offsets Package to the requirements of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation that will ensure the rehabilitation of at least 9 hectares of threatened ecological community Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain, outside of the Strategic Environmental Assessment boundary, that requires active management in land managed by the Department of Environment and Conservation and at other high priority sites in the Rockingham region.

As reported within the 2013-2014 Compliance Assessment Report the Offsets Package was approved by the OEPA on 10 October 2013 and payment made to DBCA on 5 December 2013. Compliance with this condition is complete.

3.20 M7-2

The proponent shall implement the Offsets Package required by Condition 7-1 within three years of the date of this statement.

As reported within the 2013-2014 Compliance Assessment Report the Offsets Package has been implemented. Offsets Package 2 (an additional requirement under the EPBC Act Conditions of Approval) has also been implemented with the funding being provided to DBCA for the rehabilitation and management of 9ha of TEC 19 at Lakes Cooloongup and Walyungup. Compliance with this condition is complete.

3.21 M8-1

3.21.1 MS863

Schedule 1 of Ministerial Statement 863 requires the preparation of a Construction Environmental Management Plan (CEMP) as part of any derived proposals. The CEMP was to include the following:

- *Retain, where practical, vegetation within the developed area;*
- *Include a fauna trapping and relocation program to be implemented in consultation with the Department of Environment and Conservation (DEC);*

- *Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area; and*
- *Establish vegetation in road reserves using appropriate local native species to provide linkages between areas of remnant vegetation.*

The CEMP has been prepared and was submitted to the OEPA with each Derived Proposal request. The Derived Proposals were declared and as such the accompanying CEMP was endorsed by the EPA and included in the subsequent MS 973, 995 and 1043 (Appendix 5, 6 and 7).

Implementation of the CEMP is discussed in Section 4.3.

3.21.2 MS 973, 995 and 1043

The Proponent shall implement the management action specified in sections 3.1, 3.4. 3.5. 4.2, 4.4 and 4.5 of the Construction Environmental Management Plan Version 7 dated 5 November 2013, or the relevant sections of subsequent revisions as approved by the CEO.

Implementation of the CEMP is discussed in Section 4.3.

3.22 M9-1

3.22.1 MS863

Schedule 1 of Ministerial Statement 863 requires the preparation of an Environmental Management Plan (EMP) as part of any derived proposals. The EMP was to include the following:

- *Retain, where practical, vegetation within the developed area, especially the threatened ecological community Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain;*
- *Include a fauna trapping and relocation program to be implemented in consultation with the DEC; and*
- *Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area.*

The EMP has been prepared and was submitted to the OEPA with each Derived Proposal request. The Derived Proposals were declared and as such the accompanying EMP was endorsed by the EPA and included in the subsequent MS 973, 995 and 1043 (Appendix 5, 6 and 7).

Implementation of the EMP is discussed in Section 4.4.

3.22.2 MS 973, 995 and 1043

The Proponent shall implement the management actions specified in the sections 3.1, 3.3, 3.5 and 4.1 of the Environmental Management Plan Version 6 dated 14 October 2013, or the relevant sections of subsequent revisions as approved by the CEO.

Implementation of the EMP is discussed in Section 4.4.

4. ENVIRONMENTAL MANAGEMENT AND MONITORING

4.1 Initial Conservation Area Management Plan

The Initial Conservation Area Management Plan (ICAMP) was approved by the OEPA on 23 December 2013. Management measures outlined in the approved ICAMP have been implemented in the entire Conservation Area.

The management works in the Conservation Area have been successful, reaching the completion criteria in the Conservation Area as acknowledged by DBCA and reported in the 2019-2020 Compliance Report. DevelopmentWA is currently undertaking administrative processes for the handover of the Conservation Area to the management of the DBCA.

As outlined in Section 3.11 and 3.12 the rubbish removal is ongoing as are fence repairs to maintain compliance. There will be a final rubbish removal of any newly dumped rubbish and the fence will be intact prior to handover.

An incident occurred in the Water Corporation Wastewater Treatment Plant that had a minor impact on the Conservation Area. The theft of diesel from the Treatment Plant site resulted in approximately 1500L of diesel being spilt, some of which flowed into the Conservation Area. The spill was cleaned up by the Water Corporation by removing the contaminated soil and replacing it with clean fill (Plate 5). The clean-up was verified by the Water Corporation and is considered to be remediated (Appendix 9). The remediation was confined to the fire break and no native vegetation was removed as part of the works.

Plate 5: Area of Remediation

4.2 Water Management Strategy

Development in the 2021-2022 compliance period was undertaken in accordance with the WMS. Stormwater from the cleared road will be retained and infiltrated in the development area. No extraction of groundwater has been undertaken.

There is no direct flow of stormwater into the Conservation Area from the developed area.

The development is being implemented in accordance with the WMS.

4.3 Construction Environmental Management Plan

The Construction Environmental Management Plan (CEMP) was implemented in the 2021-2022 Compliance period. The CEMP was implemented in newly cleared areas for the extension of for the Clipper Precinct roads by:

- Fauna relocation prior to and during clearing of the fire mitigation areas (Appendix 10); and
- No appropriate habitat logs were present on the site.

No grass tree removal was undertaken as development areas had already had grass trees salvaged in previous reporting periods.

4.4 Environmental Management Plan

The Environmental Management Plan (EMP) was implemented in the 2021-2022 Compliance period. The EMP was implemented in newly cleared areas by:

- Fauna relocation prior to and during clearing the fire mitigation areas within future development areas (Appendix 10); and
- No appropriate habitat logs were present on the sites.

Fauna Relocation was not required for the works on the adjoining Lot 1 Day Road as these areas were not native vegetation, being Brazilian Pepper and other weeds. No grass tree removal was undertaken as development areas had already had grass trees salvaged in previous reporting periods.

5. AUDIT TABLE

Note:

- Phases that apply in this table = Pre-Construction, Construction, Operation, Decommissioning, Overall (several phases).
- This audit table is a summary and timetable of conditions and commitments applying to this project. Refer to the Minister's Statement for full detail/precise wording of individual elements.
- Code prefixes: M = Minister's condition, P = Proponent's commitment.
- Any elements with status "Audited by proponent only" are legally binding but are not required to be addressed specifically in compliance reports, if complied with.
- Acronyms list: CEO = Chief Executive Officer of OEPA; DEC = Department of Environment and Conservation; DIA = Department of Indigenous Affairs; DMP = Department of Mining and Petroleum; EPA = Environmental Protection Authority; DoH = Department of Health; DoW = Department of Water, Minister for Env = Minister for the Environment; OEPA = Office of the Environmental Protection Authority.

Compliance Status: C = Compliant, CLD = Completed, NA = Not Audited, NC = Non – compliant, NR = Not Required at this stage. Please note the terms VR = Verification Required and IP = In Process are only for OEPA use.

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M1-1	**863, 973, 995 and 1043**	**Proponent Nomination and Contact Details**	The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.	Notify in writing if any change in ownership occurs.	Compliance Assessment Report and letter of notification if ownership changes.	Min for Env		Overall	Life of the proposal	Not required at this stage
M1-2	**863, 973, 995 and 1043**	**Proponent Nomination and Contact Details**	The proponent shall notify the Chief Executive Officer of the Department of Environment and Conservation of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.	Notify in writing a letter that provides details of the name and address of the new Proponent.	Letter of notification.	CEO		Overall	Within 30 days	Not required at this stage
M2-1	**863 and 995 (Deleted in 973)**	**Time Limit of Authorisation for Strategic Proposal**	The authorisation provided for in this statement to request a derived proposal under section 39B(1) of the *Environmental Protection Act 1986* shall lapse and be void 20 years after the date of this statement.	Notify in Writing.	The entire RIZ now has a Derived proposal over it	Min for Env		Overall	20 years after the date of this statement	Completed
M3-1	**863, 973, 995 and 1043**	**Time Limit of Authorisation for a Derived Proposal**	The authorisation to implement a derived proposal provided for in this statement shall lapse and be void five years after the declaration of the Environmental Protection Authority under section 39B(3) of the *Environmental Protection Act 1986* that the proposal is a derived proposal.	Notify in writing.	The final Derived Proposal was declared for the Superlot Subdivision and the subdivision approved, thereby the entire RIZ has a Derived Proposal declared over it and subdivisions approved, therefore are implemented – Derived Proposal approvals, Ministerial Statements 973, 995 and 1043.	Min for Env		Overall	Five years after the declaration of the Environmental Protection Authority under section 39B(3) of the *Environmental Protection Act 1986*	Completed

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M4-1	**863, 973, 995 and 1043**	**Compliance Reporting**	The proponent shall prepare and submit a compliance assessment plan to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority at least 6 months prior to the first compliance report required by condition 4-6 or prior to the commencement of future proposals, whichever is sooner.	Preparation of a Compliance Assessment Plan and a Compliance Audit Table in compliance with the requirements of the OEPA.	Compliance Assessment Plan submitted 20 January 2012 and approved 16 February 2012	CEO		Overall	At least six months prior to the first compliance report required by condition 4-6 or prior to the commencement of future proposals, whichever is sooner.	Completed
M4-2	**863, 973, 995 and 1043**	**Compliance Reporting**	The proponent shall implement and maintain to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority the compliance assessment plan required by condition 4-1. The compliance assessment plan shall indicate: 1. the frequency of compliance reporting; 2. the approach and timing of compliance assessments; 3. the retention of compliance assessments; 4. the reporting of potential non-compliances and corrective actions taken; 5. the table of contents of compliance reports; and 6. the public availability of compliance reports.	As specified in the Compliance Assessment Plan.	Compliance Assessment Plan submitted 20 January 2012 and approved 16 February 2012	CEO		Overall	Life of the proposal	Complete
M4-3	**863, 973, 995 and 1043**	**Compliance Reporting**	The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.	As specified in the Compliance Assessment Plan.	Overview provided in Compliance Assessment Report.	Min for Env		Overall	Life of the proposal	Compliant
M4-4	**863, 973, 995 and 1043**	**Compliance Reporting**	The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the Chief Executive Officer of the Office of the Environmental Protection Authority.	Records and Reports will be maintained in accordance with the Proponent's document management system requirements so that they can be retrieved if requested.	Availability of Compliance Assessment Reports and the Compliance Assessment Plan at the request of the CEO of the OEPA.	CEO		Overall	Life of the proposal	Compliant
M4-5	**863, 973, 995 and 1043**	**Compliance Reporting**	The proponent shall advise the Chief Executive Officer of the Office of the Environmental Protection Authority of any potential non-compliance as soon as practicable.	Notify in writing	Correspondence to CEO of OEPA	CEO		Overall	As soon as practicable	Compliant

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M4-6	**863, 973, 995 and 1043**	**Compliance Reporting**	The proponent shall submit a compliance assessment report annually from the date of the Minister for Environment's notice under section 45A(2) of the *Environmental Protection Act 1986* addressing the previous twelve month period or other period as agreed by the Chief Executive Officer of the Office of the Environmental Protection Authority. The compliance assessment report shall: 1. be endorsed by the proponent's Managing Director or a person, approved in writing by the Office of the Environmental Protection Authority, delegated to sign on the Managing Director's behalf; 2. include a statement as to whether the proponent has complied with the conditions; 3. identify all potential non-compliances and describe corrective and preventative actions taken; 4. be made publicly available in accordance with the compliance assessment plan; and 5. indicate any proposed changes to the compliance assessment plan required by condition 4-1.	Preparation of Compliance Assessment Report.	Submission of Compliance Assessment Report. Upload Compliance Report on Proponents website and send copies to the OEPA.	CEO		Overall	Annually from the date of the Minister for Environment's first notice under section 45A(2) of the *Environmental Protection Act 1986* or other period as agreed by the Chief Executive Officer of the Office of the Environmental Protection Authority	Compliant

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M5-1	**863** **973 and 995** **1043**	**Conservation Area**	Within 6 months of the date of this statement the proponent shall fence the Conservation Area, as delineated by Figure 1 and Table 2, to assist in preventing unauthorised access, and shall maintain the fencing until such time as the land is ceded to the Conservation Commission of Western Australia. The proponent shall maintain the fence that it established around the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, until such time as the Conservation Area is ceded to the Conservation Commission of Western Australia. The proponent shall maintain the fence that it established around the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, until such time as the Conservation Area is ceded to the Conservation and Parks Commission.	Notify in writing when fence erected.	Notification of compliance and photographic evidence from DevelopmentWA to the OEPA that the fence has been erected around the Conservation Area. Condition report for fencing included in Compliance Assessment Reports	Min for Env		Pre-Construction	29 March 2012	Completed Compliant

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M5-2	**863** **973 and 995** **1043**	**Conservation Area**	Within 6 months of the date of this statement the proponent shall remove all dumped rubbish from the Conservation Area and thereafter the proponent shall maintain the Conservation Area free of rubbish until such time as the land is ceded to the Conservation Commission of Western Australia. The proponent shall maintain the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, free of rubbish until such time as the land is ceded to the Conservation Commission of Western Australia The proponent shall maintain the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, free of rubbish until such time as the land is ceded to the Conservation and Parks Commission.	Notify in writing when rubbish removed.	Notification of compliance and photographic evidence from DevelopmentWA to the OEPA that the rubbish has been removed. Report on rubbish included in Compliance Assessment Reports annually.	Min for Env		Pre-Construction	18 May 2012	Completed Compliant

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M5-3	**863, 995 and 1043 (Deleted in 973)**	**Conservation Area**	Within two years of the date of this statement the proponent shall prepare an Initial Conservation Area Management Plan for the Conservation Area to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation. The objective of this Initial Conservation Area Management Plan is to improve the condition of the Conservation Area to a level suitable for incorporation into the Conservation Estate. The Initial Conservation Area Management Plan will address: 1. Protecting and rehabilitating the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*; 2. Maintenance of fencing of the area to control access to designated areas within the Conservation Area; 3. Design and implementation of appropriate monitoring of the vegetation within the Conservation Area, including the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain; 4.* Design and implementation of appropriate monitoring of hydrology including groundwater levels and quality and contingencies in the event of unacceptable hydrological impacts; 5. Maintaining the Conservation Area free of dumped rubbish; 6. Rehabilitation of degraded areas within the Conservation Area including tracks not required for strategic access; 7. The control of feral animal populations in the Conservation Area; 8. Weed control in the Conservation Area; 9. Fire prevention and response; 10. Enhancement of the fauna habitat in the area by providing harvested and artificial breeding infrastructure for significant fauna; 11. Using artificial polishing drainage basins outside of the Conservation Area, for the re-infiltration of stormwater into the Conservation Area; and 12. Completion criteria for handover to another management authority.	Preparation of an Initial Conservation Area Management Plan.	Initial Conservation Area Management Plan approved by the OEPA.	CEO	DBCA	Construction	23 December 2013	Completed

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M5-4	**863** **973 and 995** **1043**	**Conservation Area**	The proponent shall implement the Initial Conservation Area Management Plan required by Condition 5-3 until the Conservation Area is ceded to the Conservation Commission of Western Australia The proponent shall implement the Initial Conservation Area Management Plan required by Condition 5-3 until the Conservation Area is ceded to the Conservation Commission of Western Australia. The proponent shall implement the Initial Conservation Area Management Plan that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO, until the Conservation Area is ceded to the Conservation and Parks Commission	In accordance with the approved Initial Conservation Area Management Plan.	Compliance Assessment Reports including reports of activities within the Conservation Area and monitoring results.	Min for Env	DBCA	Overall	Until the Conservation Area is ceded to the Conservation Commission of Western Australia	Compliant and process for ceding progressing
M5-5	**863** **973 and 995** **1043**	**Conservation Area**	When the completion criteria of Condition 5-3-12 are met, or within two years of a written request from the Department of Environment and Conservation, the proponent will arrange to cede the Conservation Area to the Conservation Commission of Western Australia. When the completion criteria of Condition 5-3-12 are met, or within two years of a written request from the Department of Environment and Conservation, the proponent will arrange to cede the Conservation Area to the Conservation Commission of Western Australia. When the completion criteria in Section 5.3 of the Initial Conservation Area Management Plan referred to in condition 5-4 are met, or within two years of a written request from the Department of Parks and Wildlife, the proponent will arrange to cede the Conservation Area to the Conservation and Parks Commission	The Proponent will inform the Minister for the Environment in writing when Conservation Area has been transferred to the Crown.	Letter to the Minister for the Environment. Land Transfer Documentation.	Min for Env	DBCA,	Overall	When the completion criteria of Condition 5-3-12 are met, or within two years of a written request from the Department of Environment and Conservation	Compliant – completion criteria have been met and currently being transferred – maintenance works being undertaken

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M5-6	**863, 973, 995 and 1043**	**Conservation Area**	Within one year of ceding land (pursuant to Condition 5-5) the proponent shall prepare a Conservation Area Management Plan to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation. The objective of this Conservation Area Management Plan is to guide continued management of the conservation values of the area. The Conservation Area Management Plan will address: 1. Protecting and rehabilitating the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*; 2. Maintenance of fencing of the area to control access to designated areas within the Conservation Area; 3. Ongoing vegetation monitoring of the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain; 4.* Ongoing monitoring of hydrology including groundwater levels and quality and implementation of contingencies in the event of unacceptable hydrological impacts; 5. Management of rehabilitated areas within the Conservation Area 6. The control of feral animal populations in the Conservation Area; 7. Weed control in the Conservation Area; 8. Fire prevention and response; 9. Enhancement of the fauna habitat in the area by providing harvested and artificial breeding infrastructure for Carnaby's Cockatoos; and 10. Using artificial polishing drainage basins outside of the Conservation Area for the re-infiltration of stormwater into the Conservation Area.	Preparation of a Conservation Area Management Plan.	Approved Conservation Area Management Plan with correspondence from the CEO of the OEPA and DBCA	CEO	DBCA	Overall	Within one year of ceding land	Commenced and Compliant

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M6-1	**863 (Deleted in 973)**	**Water Management Strategy**	Within two years of the date of this statement the proponent shall prepare a Water Management Strategy to the requirements of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation and the Department of Water. The Water Management Strategy will address: 1. Managing stormwater as a resource; 2. Maintaining stormwater and groundwater quality to pre-development levels; 3. Maintaining hydrology including water quality and levels of natural ecosystems; 4. Retaining or improving groundwater balance; 5. Managing the salt wedge / Cockburn Sound interface; 6. Creating industrial landscapes as ecologically functioning units; and 7. Integrating Water Sensitive Urban Design within landscape at site, precinct and district scales.	Preparation of a Water Management Strategy.	Water Management Strategy endorsed by the DoW and approved by the OEPA.	CEO	DBCA, DoW	Construction	5 July 2013 by the DoW and 23 December 2013 by the OEPA	Completed
M6-2	**863** **973, 995 and 1043**	**Water Management Strategy**	The proponent shall implement the Water Management Strategy required by Condition 6-1. The proponent shall implement the Water Management Strategy that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO.	In accordance with the approved Water Management Strategy.	Compliance Assessment Reports.	Min for Env	DWER, DBCA	Overall	Life of the proposal	Compliant
M7-1	**863 and 995 (Deleted in 973)**	**Offsets**	Within two years of the date of this statement the proponent shall prepare an Offsets Package to the requirements of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation that will ensure the rehabilitation of at least 9 hectares of threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*, outside of the Strategic Environmental Assessment boundary, that requires active management in land managed by the Department of Environment and Conservation and at other high priority sites in the Rockingham region.	Preparation of the Offsets Package.	Offsets Package submitted to OEPA on 25 September 2013 and approved on 10 October 2013	CEO	DBCA	Construction	25 May 2013	Completed

AUDIT TABLE

Statement Compliance Section

PROJECT: ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Audit Code	MS No	Subject	Action	How	Evidence	Satisfy	Advice	Phase	When	Status
M7-2	**863 and 995 (Deleted in 973)**	**Offsets**	The proponent shall implement the Offsets Package required by Condition 7-1 within three years of the date of this statement.	In accordance with the approved Offsets Package. DevelopmentWA provided funding for the Offsets Package.	Payment of funds to implement the Offsets Package provided to DBCA on 5 December 2013	Min for Env	DBCA	Construction	25 May 2014	Completed
M8-1	**973, 995 and 1043** **(Inc. as Schedule 1 in 863)**	**Construction Environmental Management Plan**	The Proponent shall implement the management action specified in sections 3.1, 3.4. 3.5. 4.2, 4.4 and 4.5 of the Construction Environmental Management Plan Version 7 dated 5 November 2013, or the relevant sections of subsequent revisions as approved by the CEO.	In accordance with the approved Construction Environmental Management Plan	Compliance Assessment Reports	Min for Env	DBCA, CoR	Construction	During construction of Roads and other infrastructure	Compliant
M9-1	**973, 995 and 1043** **(Inc. as Schedule 1 in 863)**	**Environmental Management Plan**	The Proponent shall implement the management actions specified in the sections 3.1, 3.3, 3.5 and 4.1 of the Environmental Management Plan Version 6 dated 14 October 2013, or the relevant sections of subsequent revisions as approved by the CEO.	In accordance with the approved Environmental Management Plan	Compliance Assessment Reports	Min for Env	DBCA, CoR	Construction	During construction of industry	Compliant

6. PUBLIC AVAILABILITY OF COMPLIANCE ASSESSMENT REPORT

In accordance with Condition 4-4 of the Ministerial Statement and the approved Compliance Assessment Plan, all Compliance Assessment Reports shall be retained for the life of the Project and be made available when requested by the CEO of the OEPA.

This Compliance Assessment Report 2021-2022 will be publicly available on DevelopmentWA's website (https://developmentwa.com.au/projects/industrial-and-commercial/rockingham-industry-zone/environmental-compliance).

APPENDIX 1

Ministerial Statement 863

Published on: 26 May 2011 Statement No. 863

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

ROCKINGHAM INDUSTRIAL ZONE STRATEGIC ENVIRONMENTAL ASSESSMENT (FORMERLY IP14)

Proposal: The strategic proposal is to identify a development footprint for future industrial development over a 339 hectare area of the Rockingham Industrial Zone, while retaining an area as a conservation reserve.

The strategic proposal and identification of derived proposals is further documented in schedule 1 of this statement.

Proponent: Landcorp

Proponent Address: Level 3
Wesfarmers House
40 The Esplanade
Perth WA 6000

Assessment Number: 1534

Report of the Environmental Protection Authority: Report 1390

The strategic proposal and future proposals referred to in the above report of the Environmental Protection Authority may be implemented. The implementation of the proposal shall be subject to the following conditions and procedures (subject to the Minister for Environment's identification of relevant conditions under section 45A(3) of the *Environmental Protection Act 1986)*:

1 Proponent Nomination and Contact Details

1-1 The proponent for the time being nominated by the Minister for Environment under sections 38(6) or 38(7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal.

1-2 The proponent shall notify the Chief Executive Officer of the Department of Environment and Conservation of any change of the name and address of the proponent for the serving of notices or other correspondence within 30 days of such change.

2 Time Limit of Authorisation for Strategic Proposal

2-1 The authorisation provided for in this statement to request a derived proposal under section 39B(1) of the *Environmental Protection Act 1986* shall lapse and be void 20 years after the date of this statement.

3 Time Limit of Authorisation for a Derived Proposal

3-1 The authorisation to implement a derived proposal provided for in this statement shall lapse and be void five years after the declaration of the Environmental Protection Authority under section 39B(3) of the *Environmental Protection Act 1986* that the proposal is a derived proposal.

4 Compliance Reporting

4-1 The proponent shall prepare and submit a compliance assessment plan to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority at least 6 months prior to the first compliance report required by condition 4-6 or prior to the commencement of future proposals, whichever is sooner.

4-2 The proponent shall implement and maintain to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority the compliance assessment plan required by condition 4-1. The compliance assessment plan shall indicate:

1. the frequency of compliance reporting;
2. the approach and timing of compliance assessments;
3. the retention of compliance assessments;
4. the reporting of potential non-compliances and corrective actions taken;
5. the table of contents of compliance reports; and
6. the public availability of compliance reports.

4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.

4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the Chief Executive Officer of the Office of the Environmental Protection Authority.

4-5 The proponent shall advise the Chief Executive Officer of the Office of the Environmental Protection Authority of any potential non-compliance as soon as practicable.

4-6 The proponent shall submit a compliance assessment report annually from the date of the Minister for Environment's notice under section 45A(2) of the *Environmental Protection Act 1986* addressing the previous twelve month period or other period as agreed by the Chief Executive Officer of the Office of the Environmental Protection Authority. The compliance assessment report shall:

1. be endorsed by the proponent's Managing Director or a person, approved in writing by the Office of the Environmental Protection Authority, delegated to sign on the Managing Director's behalf;

2. include a statement as to whether the proponent has complied with the conditions;

3. identify all potential non-compliances and describe corrective and preventative actions taken;

4. be made publicly available in accordance with the compliance assessment plan; and

5. indicate any proposed changes to the compliance assessment plan required by condition 4-1.

5 Conservation Area

5-1 Within 6 months of the date of this statement the proponent shall fence the Conservation Area, as delineated by Figure 1 and Table 2, to assist in preventing unauthorised access, and shall maintain the fencing until such time as the land is ceded to the Conservation Commission of Western Australia.

5-2 Within 6 months of the date of this statement the proponent shall remove all dumped rubbish from the Conservation Area and thereafter the proponent shall maintain the Conservation Area free of rubbish until such time as the land is ceded to the Conservation Commission of Western Australia.

5-3 Within two years of the date of this statement the proponent shall prepare an Initial Conservation Area Management Plan for the Conservation Area to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation. The objective of this Initial Conservation Area Management Plan is to improve the condition of the Conservation Area to a level suitable for incorporation into the Conservation Estate.

The Initial Conservation Area Management Plan will address:

1. Protecting and rehabilitating the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*;

2. Maintenance of fencing of the area to control access to designated areas within the Conservation Area;

3. Design and implementation of appropriate monitoring of the vegetation within the Conservation Area, including the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain;*

4. Design and implementation of appropriate monitoring of hydrology including groundwater levels and quality and contingencies in the event of unacceptable hydrological impacts;

5. Maintaining the Conservation Area free of dumped rubbish;

6. Rehabilitation of degraded areas within the Conservation Area including tracks not required for strategic access;

7. The control of feral animal populations in the Conservation Area;

8. Weed control in the Conservation Area;

9. Fire prevention and response;

10. Enhancement of the fauna habitat in the area by providing harvested and artificial breeding infrastructure for significant fauna;

11. Using artificial polishing drainage basins outside of the Conservation Area, for the re-infiltration of stormwater into the Conservation Area; and

12. Completion criteria for handover to another management authority.

5-4 The proponent shall implement the Initial Conservation Area Management Plan required by Condition 5-3 until the Conservation Area is ceded to the Conservation Commission of Western Australia

5-5 When the completion criteria of Condition 5-3-12 are met, or within two years of a written request from the Department of Environment and Conservation, the proponent will arrange to cede the Conservation Area to the Conservation Commission of Western Australia.

5-6 Within one year of ceding land (pursuant to Condition 5-5) the proponent shall prepare a Conservation Area Management Plan to the satisfaction of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation. The

objective of this Conservation Area Management Plan is to guide continued management of the conservation values of the area.

The Conservation Area Management Plan will address:

1. Protecting and rehabilitating the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*;

2. Maintenance of fencing of the area to control access to designated areas within the Conservation Area;

3. Ongoing vegetation monitoring of the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain;*

4. Ongoing monitoring of hydrology including groundwater levels and quality and implementation of contingencies in the event of unacceptable hydrological impacts;

5. Management of rehabilitated areas within the Conservation Area

6. The control of feral animal populations in the Conservation Area;

7. Weed control in the Conservation Area;

8. Fire prevention and response;

9. Enhancement of the fauna habitat in the area by providing harvested and artificial breeding infrastructure for Carnaby's Cockatoos; and

10. Using artificial polishing drainage basins outside of the Conservation Area for the re-infiltration of stormwater into the Conservation Area.

6 Water Management Strategy

6-1 Within two years of the date of this statement the proponent shall prepare a Water Management Strategy to the requirements of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation and the Department of Water.

The Water Management Strategy will address:

1. Managing stormwater as a resource;

2. Maintaining stormwater and groundwater quality to pre-development levels;

3. Maintaining hydrology including water quality and levels of natural ecosystems;

4. Retaining or improving groundwater balance;

5. Managing the salt wedge / Cockburn Sound interface;

6. Creating industrial landscapes as ecologically functioning units; and

7. Integrating Water Sensitive Urban Design within landscape at site, precinct and district scales.

6-2 The proponent shall implement the Water Management Strategy required by Condition 6-1.

7 Offsets

7-1 Within two years of the date of this statement the proponent shall prepare an Offsets Package to the requirements of the Chief Executive Officer of the Office of the Environmental Protection Authority on advice from the Department of Environment and Conservation that will ensure the rehabilitation of at least 9 hectares of threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*, outside of the Strategic Environmental Assessment boundary, that requires active management in land managed by the Department of Environment and Conservation and at other high priority sites in the Rockingham region.

7-2 The proponent shall implement the Offsets Package required by Condition 7-1 within three years of the date of this statement.

HON BILL MARMION MLA
MINISTER FOR ENVIRONMENT; WATER

Schedule 1

The Strategic Proposal for the Rockingham Industrial Zone and Identification of Derived Proposals (Assessment No. 1534)

The Strategic Proposal is to:

- identify a development footprint for future industrial development within a 339 hectare section of the Rockingham Industrial Zone (the SEA Area shown in Figure 1);

- retain an area as a conservation area as delineated in Figure 1 and by coordinates in Table 2.

Derived proposals are expected to include:

- subdivision for industrial purposes; and

- the provision of infrastructure (such as roads, water services and power services) within the development footprint.

The main characteristics and the extent of derived proposals of the strategic proposal are summarised in Table 1 below.

Table 1: Summary of Key Proposal Characteristics

Strategic proposal	
Element	**Description**
Overall area	339 hectares of Rockingham Industrial Zone (SEA Area).
Development area:	All land within the SEA Area, excluding the Conservation Area.
Derived proposals	
Type of derived proposal	**Key characteristics**
Subdivision and provision of infrastructure.	• Within the development area • In accordance with the Water Management Strategy (of Condition 6-1). • Includes a Construction Environmental Management Plan to: - Retain, where practical, vegetation within the developed area; - Include a fauna trapping and relocation

	program to be implemented in consultation with the Department of Environment and Conservation (DEC); - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area; and - Establish vegetation in road reserves using appropriate local native species to provide linkages between areas of remnant vegetation. • Includes an Environmental Management Plan (overall or site specific) to guide future development of industry within the site to: - Retain, where practical, vegetation within the developed area, especially the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*; - Include a fauna trapping and relocation program to be implemented in consultation with the DEC; and - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area.

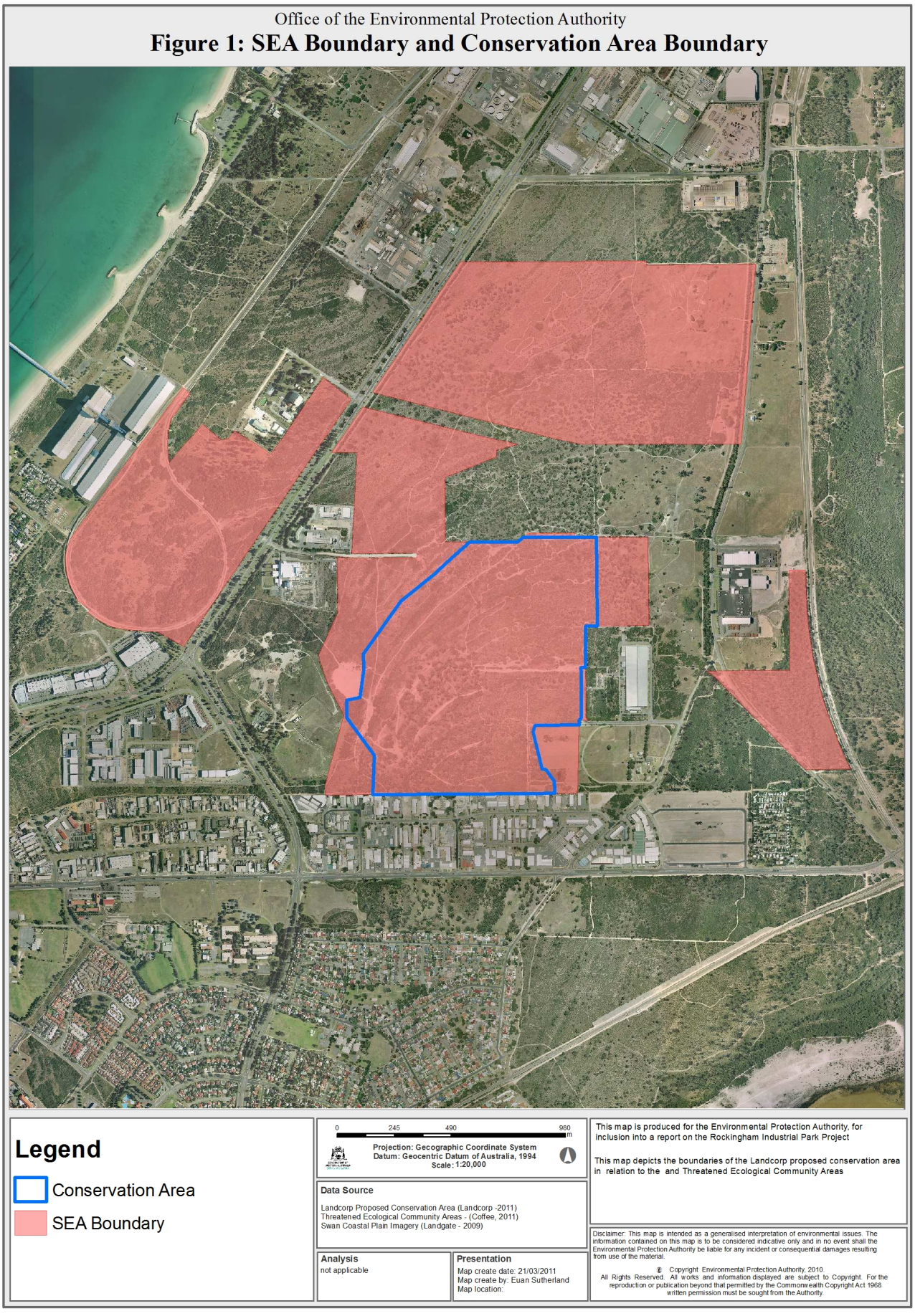


Figure 1: SEA Area and Conservation Area Boundary

Table 2: Co-ordinates defining the boundary of the Conservation Area

co-ordinates derived in GDA 94 MGA Zone 50

ID	Easting	Northing
1	383863.69	6429479.27
2	383926.94	6429537.90
3	383962.12	6429569.02
4	384013.19	6429614.58
5	384219.74	6429614.68
6	384244.25	6429635.26
7	384551.58	6429634.96
8	384558.70	6429634.99
9	384562.18	6429255.29
10	384511.07	6429254.87
11	384512.58	6429074.48
12	384492.56	6429074.31
13	384492.81	6429044.20
14	384494.36	6428859.42
15	384484.45	6428849.34
16	384484.61	6428829.36
17	384298.45	6428827.86
18	384294.35	6428827.86
19	384285.65	6428798.95
20	384324.40	6428639.14
21	384341.24	6428639.02
22	384378.42	6428588.06
23	384379.61	6428535.65
24	384268.47	6428534.84
25	383934.89	6428532.42
26	383597.19	6428529.97
27	383603.50	6428698.24
28	383486.31	6428859.12
29	383486.31	6428935.12
30	383543.70	6428947.53
31	383559.21	6429068.50
32	383557.66	6429135.19
33	383720.51	6429363.17
34	383790.19	6429419.72
35	383863.69	6429479.27

APPENDIX 2

Attachment 1 to Ministerial Statement 863

Attachment 1 to Ministerial Statement 863

Change to proposal under s45C of the *Environmental Protection Act 1986*

Proposal: **Rockingham Industrial Zone Strategic Environmental Assessment (Formerly IP14)**

Proponent: **LandCorp**

Change: Add 4.36 hectares to the Rockingham Industrial Zone Strategic Proposal area

The strategic proposal is to identify a development footprint for future industrial development over a 339 hectare area of the Rockingham Industrial Zone, while retaining an area as a conservation reserve.

Table 1. Summary of Key Proposal Characteristics: this table replaces Table 1 in Schedule 1.

Strategic proposal		
Element	**Description of proposal**	**Description of approved change to proposal**
Overall area	339 hectares of Rockingham Industrial Zone (SEA Area)	**343.36 hectares** of Rockingham Industrial Zone (SEA Area)
Development area	All land within the SEA Area, excluding the Conservation Area	All land within the SEA Area, excluding the Conservation Area.
Derived proposals		
Type of derived proposal	**Key characteristics**	**Key characteristics**
Subdivision and provision of infrastructure.	Within the development area • In accordance with the Water Management Strategy (of Condition 6-1). • Includes a Construction Environmental Management Plan to: - Retain, where practical, vegetation within the developed area; - Include a fauna trapping and relocation program to	Within the development area • In accordance with the Water Management Strategy (of Condition 6-1). • Includes a Construction Environmental Management Plan to: - Retain, where practical, vegetation within the developed area; - Include a fauna trapping and relocation program to

Strategic proposal		
Element	**Description of proposal**	**Description of approved change to proposal**
	be implemented in consultation with the Department of Environment and Conservation (DEC); - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area; and - Establish vegetation in road reserves using appropriate local native species to provide linkages between areas of remnant vegetation. • Includes an Environmental Management Plan (overall or site specific) to guide future development of industry within the site to: - Retain, where practical, vegetation within the developed area, especially the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*; - Include a fauna trapping and relocation program to be implemented in consultation with the DEC; and - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area.	be implemented in consultation with the Department of Environment and Conservation (DEC); - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area; and - Establish vegetation in road reserves using appropriate local native species to provide linkages between areas of remnant vegetation. • Includes an Environmental Management Plan (overall or site specific) to guide future development of industry within the site to: - Retain, where practical, vegetation within the developed area, especially the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*; - Include a fauna trapping and relocation program to be implemented in consultation with the DEC; and - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area.

Note: Text in **bold** in the Key Characteristics Table, indicates change/s to the proposal.

Replacement Figure:

Figure 1. SEA Area and Conservation Area Boundary: this Figure replaces Figure 1 of Schedule 1**.**

[Signed 4 October 2013]

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Rockingham Industrial Zone - SEA, Conservation and Proposed Additional Area boundaries

Map Version: 1.10
Date: 01/10/2013
Created By: B. Smith

LEGEND

- s45 Proposed Additional Area
- Conservation Area
- SEA Boundary

SOURCE DATA
Landgate: Roads
SLIP: Metro Central Jan 2013 Mosaic
Proponent: SEA, Additional Area 20130926
Location Path: \\oepapvfls01\GIS\Projects\epasu\minor_projects\eia\20110110_Rockingham_industrial_zone_SEA_maps

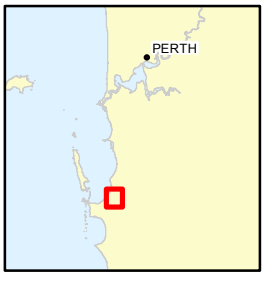
GOVERNMENT OF WESTERN AUSTRALIA
Office of the EPA

N

0 250 500 1,000
Metres

Projection: Map Grid of Australia Zone 50
Datum: Geocentric Datum of Australia, 1994
Scale:1:20,000

LOCALITY MAP



APPENDIX 3

Attachment 2 to Ministerial Statement 863

Attachment 2 to Ministerial Statement 863

Change to proposal approved under section 45C of the *Environmental Protection Act 1986*

This Attachment replaces Schedule 1 and Attachment 1 in Ministerial Statement 863

Proposal: Rockingham Industrial Zone Strategic Environmental Assessment (Formerly IP14)

Proponent: Western Australian Land Authority (LandCorp)

Changes:

- Addition of 197.54 hectares (ha) to the original proposal area.
- Inclusion of the Conservation Area of 91 ha in Table 2

Table 1: Summary of the Proposal

Proposal Title	Rockingham Industrial Zone Strategic Environmental Assessment (Formerly IP14)
Short Description	The strategic proposal is to identify a development footprint for future industrial development over a **540.90** ha area of the Rockingham Industrial Zone, while retaining an area as a conservation reserve (Figure 1).

Table 2: Location and authorised extent of physical elements

Strategic proposal		
Element	Description of proposal	Description of approved change to proposal
Overall Area	343.36 ha of Rockingham Industrial Zone (SEA Area)	**540.90** ha of Rockingham Industrial Zone (SEA Area)
Development Area	All land within the SEA Area, excluding the Conservation Area	All land within the SEA Area, excluding the Conservation Area of **91** ha
Derived proposal		
Type of derived proposal	Description of proposal	Description of approved change to proposal
Subdivision and provision of infrastructure	Within the development area • In accordance with the Water Management Strategy (of condition 6-1). • Includes a Construction Environmental Management Plan to: - Retain, where practical, vegetation within the developed area; - Include a fauna trapping and relocation program to be implemented in consultation with the Department of Environment	Within the development area • In accordance with the Water Management Strategy (of condition 6-1). • Includes a Construction Environmental Management Plan to: - Retain, where practical, vegetation within the developed area; - Include a fauna trapping and relocation program to be implemented in consultation with **the Department of Parks**

Strategic proposal		
Element	Description of proposal	Description of approved change to proposal
	and Conservation (DEC); - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area; and - Establish vegetation in road reserves using appropriate local native species to provide linkages between areas of remnant vegetation. • Includes an Environmental Management Plan (overall or site specific) to guide future development of industry within the site to: - Retain, where practical, vegetation within the developed area, especially the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*; - Include a fauna trapping and relocation program to be implemented in consultation with the DEC; and - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area.	**and Wildlife (DPaW);** - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area; and - Establish vegetation in road reserves using appropriate local native species to provide linkages between areas of remnant vegetation. • Includes an Environmental Management Plan (overall or site specific) to guide future development of industry within the site to: - Retain, where practical, vegetation within the developed area, especially the threatened ecological community *Sedgelands in Holocene due swales of the Southern Swan Coastal Plain*; - Include a fauna trapping and relocation program to be implemented in consultation with **the Department of Parks and Wildlife (DPaW)**; and - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area.

Note: Text in **bold** indicates a change to the proposal.

Figure 1 replaces all previous Figures in Schedule 1 and Attachment 1.

Table 3: Co-ordinates defining the boundary of the Conservation Area

co-ordinates derived in GDA 94 MGA Zone 50

ID	Easting	Northing
1	384218.49	6429614.679
2	384014.4364	6429614.581
3	384014.4364	6429614.58
4	384013.1864	6429614.58
5	383962.12	6429569.02
6	383926.94	6429537.9
7	383863.69	6429479.27
8	383790.19	6429419.72
9	383720.51	6429363.17
10	383557.66	6429135.19
11	383540.7395	6428947.045
12	383486.31	6428938.12
13	383486.31	6428936.87
14	383486.31	6428859.12
15	383562.849	6428753.995
16	383568.176	6428719.464
17	383603.5	6428698.24
18	383594.6082	6428571.348
19	383594.521	6428570.104
20	383594.53	6428568.854
21	383594.8007	6428531.112
22	383594.8096	6428531.112
23	383594.8096	6428529.862
24	383596.0596	6428529.872
25	384379.61	6428535.65
26	384378.42	6428588.06
27	384371.011	6428598.224
28	384358.1222	6428621.415
29	384343.7714	6428632.372
30	384313.1463	6428672.263
31	384293.983	6428718.754
32	384287.609	6428768.644
33	384294.4613	6428818.464
34	384298.45	6428827.86
35	384299.6999	6428827.87
36	384484.61	6428829.36
37	384484.45	6428849.34
38	384494.36	6428859.42
39	384492.81	6429044.2
40	384492.56	6429074.31
41	384512.58	6429074.48
42	384511.07	6429254.87
43	384566.4264	6429255.33
44	384566.4263	6429255.34
45	384567.6763	6429255.34
46	384567.6763	6429256.59
47	384567.6852	6429256.59
48	384570.3519	6429629.773

ID	Easting	Northing
49	384570.3608	6429631.022
50	384569.1108	6429631.022
51	384569.1109	6429631.033
52	384559.9905	6429631.108
53	384558.7406	6429631.118
54	384558.7293	6429632.368
55	384558.5704	6429649.984
56	384558.5592	6429649.984
57	384558.5592	6429651.234
58	384557.3092	6429651.234
59	384557.3092	6429651.244
60	384267.3949	6429653.623
61	384266.145	6429653.634
62	384219.74	6429614.68
63	384218.49	6429614.679

[Signed 22 October 2014]

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Figure 1 – Rockingham Industrial Zone Strategic Environmental Assessment (SEA), and Conservation Boundaries

APPENDIX 4

Attachment 3 to Ministerial Statement 863

Attachment 3 to Ministerial Statement 863

Change to proposal approved under section 45C of the
Environmental Protection Act 1986

This Attachment replaces Attachment 2 of Ministerial Statement 863

Proposal: Rockingham Industrial Zone Strategic Environmental Assessment (Formerly IP14)

Proponent: Western Australian Land Authority (trading as LandCorp)

Changes: Change the Conservation Area boundaries to remove a rail corridor from the south and provide additional land in the north.

Table 1: Summary of the Proposal

Proposal Title	Rockingham Industrial Zone Strategic Environmental Assessment (Formerly IP14)
Short Description	The strategic proposal is to identify a development footprint for future industrial development over a 540.9 hectare (ha) area of the Rockingham Industrial Zone, while retaining an area as a conservation reserve (Figure 1).

Table 2: Location and authorised extent of physical and operational elements

Column 1	Column 2	Column 3	Column 4
Element	Location	Authorised Extent	Previously Authorised Extent
Overall Area	Figure 1	540.90 ha of Rockingham Industrial Zone (SEA Area)	540.90 ha of Rockingham Industrial Zone (SEA Area)
Development **Envelope**	Figure 1	All land within the SEA Area, excluding the Conservation Area of **89.1** ha	All land within the SEA Area, excluding the Conservation Area of 91 ha
Derived proposal			
Type of derived proposal	Location	Authorised Extent	Previously Authorised Extent
Subdivision and provision of infrastructure	N/A	Within the development area • In accordance with the Water Management Strategy (of condition 6-1). • Includes a Construction Environmental Management Plan to: - Retain, where practical, vegetation within the developed area; - Include a fauna trapping and relocation program to be implemented in consultation with the	Within the development area • In accordance with the Water Management Strategy (of condition 6-1). • Includes a Construction Environmental Management Plan to: - Retain, where practical, vegetation within the developed area; - Include a fauna trapping and relocation program to be implemented in consultation with the

Column 1	Column 2	Column 3	Column 4
Element	Location	Authorised Extent	Previously Authorised Extent
		Department of Parks and Wildlife (DPaW); - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area; and - Establish vegetation in road reserves using appropriate local native species to provide linkages between areas of remnant vegetation. • Includes an Environmental Management Plan (overall or site specific) to guide future development of industry within the site to: - Retain, where practical, vegetation within the developed area, especially the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*; - Include a fauna trapping and relocation program to be implemented in consultation with the Department of Parks and Wildlife (DPaW); and - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area.	Department of Parks and Wildlife (DPaW); - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area; and - Establish vegetation in road reserves using appropriate local native species to provide linkages between areas of remnant vegetation. • Includes an Environmental Management Plan (overall or site specific) to guide future development of industry within the site to: - Retain, where practical, vegetation within the developed area, especially the threatened ecological community *Sedgelands in Holocene dune swales of the Southern Swan Coastal Plain*; - Include a fauna trapping and relocation program to be implemented in consultation with the Department of Parks and Wildlife (DPaW); and - Salvage potential breeding habitat for avifauna during clearing for integration into the Conservation Area.

Note: Text in **bold** in Table 2 indicates a change to the proposal.

Figure and Table (attached)

Figure 1 Rockingham Industrial Zone Strategic Environmental Assessment (SEA), and Conservation Boundaries

Table 3 Coordinates defining the boundaries of the Conservation Area

[Signed 11 November 2015]

Dr Tom Hatton
CHAIRMAN
Environmental Protection Authority
under delegated authority

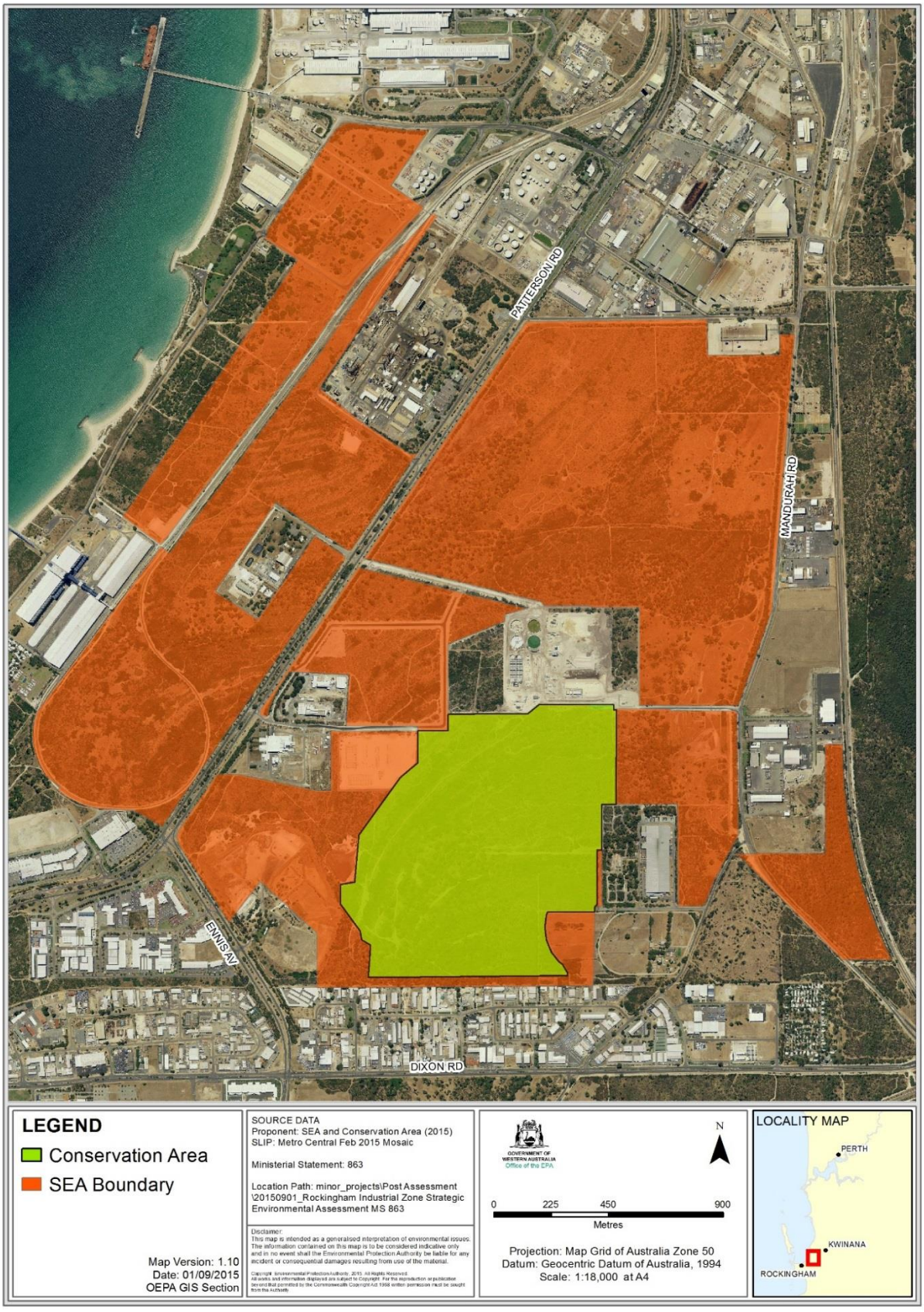


Figure 1: Rockingham Industrial Zone Strategic Environmental Assessment (SEA) and Conservation Boundaries

Rockingham Industrial Zone Conservation Area Boundaries

All Co-ordinates are in metres and are listed in Map Grid of Australia Zone 50 (MGA Zone 50), datum of Geocentric Datum of Australia 1994 (GDA94)

Table 3: Coordinates defining the boundaries of the Conservation Area

ID	Easting	Northing
1	384559	6429651
2	384559	6429631
3	384570	6429631
4	384568	6429255
5	384511	6429255
6	384513	6429075
7	384493	6429074
8	384493	6428980
9	384494	6428859
10	384484	6428849
11	384485	6428829
12	384298	6428828
13	384294	6428818
14	384288	6428769
15	384294	6428719
16	384313	6428672
17	384344	6428632
18	384358	6428621
19	384371	6428598
20	384378	6428588
21	384379	6428576

ID	Easting	Northing
22	384269	6428575
23	383798	6428572
24	383595	6428570
25	383604	6428698
26	383568	6428719
27	383563	6428754
28	383486	6428859
29	383486	6428937
30	383486	6428938
31	383541	6428947
32	383558	6429135
33	383686	6429315
34	383720	6429364
35	383790	6429422
36	383789	6429549
37	383909	6429550
38	383909	6429614
39	384013	6429614
40	384220	6429615
41	384266	6429653

APPENDIX 5

Ministerial Statement 973

Published on: 18 June 2014 Statement No: 973

STATEMENT TO AMEND CONDITIONS APPLYING TO A DERIVED PROPOSAL (PURSUANT TO THE PROVISIONS OF SECTION 46(4) OF THE *ENVIRONMENTAL PROTECTION ACT 1986*)

SUBDIVISION OF LOT 500 PATTERSON ROAD, EAST ROCKINGHAM

Derived Proposal: Subdivision of Lot 500 Patterson Road, East Rockingham identified in plan of subdivision titled Rockingham Industry Zone Subdivision Plan Lot 500 Patterson Road, Rockingham (Rockingham Amended Plan dated 7 August 2013)

Proponent: Western Australian Land Authority trading as LandCorp

Proponent Address: Level 6
Wesfarmers House
40 The Esplanade
Perth WA 6000

Inquiry into Conditions Assessment Number: 1996

Report of the Environmental Protection Authority's Inquiry into Conditions: 1502

Strategic Proposal Statement Number: 863

By Section 45A Notice Statement 863 – No 1 dated 24 April 2014, the Minister for Environment gave notice that the implementation agreement previously made and referred to in Statement No. 863 dated 26 May 2011 takes effect in relation to this derived proposal subject to any change of the implementation conditions made under sections 46 or 46C of the *Environmental Protection Act 1986.*

Pursuant to section 46 of the *Environmental Protection Act 1986* implementation conditions in Statement No. 863 dated 26 May 2011, as applied only to this derived proposal, are amended as follows:

1. Change to Condition 2-1

Condition 2-1 of Statement No. 863 is deleted.

2. Change to Condition 5-1

Condition 5-1 of Statement No. 863 is deleted and replaced with:

5-1 The proponent shall maintain the fence that it established around the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, until such time as the Conservation Area is ceded to the Conservation Commission of Western Australia.

3. Change to Condition 5-2

Condition 5-2 of Statement No. 863 is deleted and replaced with:

5-2 The proponent shall maintain the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, free of rubbish until such time as the land is ceded to the Conservation Commission of Western Australia.

4. Change to Condition 5-3

Condition 5-3 of Statement No. 863 is deleted.

5. Change to Condition 5-4

Condition 5-4 of Statement No. 863 is deleted and replaced with:

5-4 The proponent shall implement the Initial Conservation Area Management Plan that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO, until the Conservation Area is ceded to the Conservation Commission of Western Australia.

6. Change to Condition 5-5

Condition 5-5 of Statement No. 863 is deleted and replaced with:

5-5 When the completion criteria detailed in the Initial Conservation Area Management Plan referred to in condition 5-4 are met, or within two years of a written request from the Department of Parks and Wildlife, the proponent will arrange to cede the Conservation Area to the Conservation Commission of Western Australia.

7. Change to Condition 6-1

Condition 6-1 of Statement No. 863 is deleted.

8. Change to Condition 6-2

Condition 6-2 of Statement No. 863 is deleted and replaced with:

6-2 The proponent shall implement the Water Management Strategy that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO.

9. Change to Condition 7-1

Condition 7-1 of Statement No.863 is deleted.

10. Change to Condition 7-2

Condition 7-2 of Statement No. 863 is deleted and replaced with:

7-2 The proponent shall implement the Offsets Package that was approved by the CEO on 10 October 2013 within six months of the date of this statement, or by a later date agreed by the CEO.

11. Add new Condition

8-1 The Proponent shall implement the management action specified in the sections 3.1, 3.4. 3.5. 4.2, 4.4 and 4.5 of the Construction Environmental Management Plan Version 7 dated 5 November 2013, or the relevant sections of subsequent revisions as approved by the CEO.

12. Add new Condition

9-1 The Proponent shall implement the management actions specified in the sections 3.1, 3.3, 3.5 and 4.1 of the Environmental Management Plan Version 6 dated 14 October 2013, or the relevant sections of subsequent revisions as approved by the CEO.

[Signed 18 June 2014]

Albert Jacob MLA
MINISTER FOR ENVIRONMENT; HERITAGE

Term or Phrase	Definition
CEO	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the *Environmental Protection Act 1986*, or his delegate.
EPA	Environmental Protection Authority
EP Act	*Environmental Protection Act 1986*

APPENDIX 6

Ministerial Statement 995

Published on: 18 February 2015 Statement No: 995

STATEMENT TO AMEND CONDITIONS APPLYING TO A DERIVED PROPOSAL (PURSUANT TO THE PROVISIONS OF SECTION 46(4) OF THE *ENVIRONMENTAL PROTECTION ACT 1986*)

SUBDIVISION OF LOT 21 ALUMINA ROAD, EAST ROCKINGHAM

Derived Proposal: Lot 21 Alumina Road, East Rockingham identified in plan of subdivision titled Subdivision Concept Plan Lot 21 Alumina Road, East Rockingham dated 31 January 2014.

Proponent: Western Australian Land Authority trading as LandCorp

Proponent Address: Level 6
Wesfarmers House
40 The Esplanade
Perth WA 6000

Inquiry into Conditions Assessment Number: 2033

Report of the Environmental Protection Authority's Inquiry into Conditions: 1535

Strategic Proposal Statement Number: 863

By Section 45A Notice No. 2 dated 5 January 2015, the Minister for Environment gave notice that the implementation agreement previously made and referred to in Statement No. 863 dated 26 May 2011 takes effect in relation to this derived proposal. The Minister for Environment also gave notice that conditions 1-1, 1-2, 3-1, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 5-1, 5-2, 5-4, 5-5, 5-6 and 6-2 of Statement 863 apply to this derived proposal subject to any change of the conditions made under sections 46 or 46C of the *Environmental Protection Act 1986*.

Pursuant to sections 46 of the *Environmental Protection Act 1986* implementation conditions 1-1, 1-2, 3-1, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 5-1, 5-2, 5-4, 5-5, 5-6 and 6-2 of in Statement No. 863 dated 26 May 2011, as applied only to this derived proposal are amended as follows:

1. Change to condition 5-1

Condition 5-1 of Ministerial Statement 863 is deleted and replaced with:

5-1 The proponent shall maintain the fence that it established around the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, until such time as the Conservation Area is ceded to the Conservation Commission of Western Australia.

2. Change to condition 5-2

Condition 5-2 of Ministerial Statement 863 is deleted and replaced with:

5-2 The proponent shall maintain the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, free of rubbish until such time as the land is ceded to the Conservation Commission of Western Australia.

3. Change to condition 5-4

Condition 5-4 of Ministerial Statement 863 is deleted and replaced with:

5-4 The proponent shall implement the Initial Conservation Area Management Plan that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO, until the Conservation Area is ceded to the Conservation Commission of Western Australia.

4. Change to condition 5-5

Condition 5-5 of Ministerial Statement 863 is deleted and replaced with:

5-5 When the completion criteria detailed in the Initial Conservation Area Management Plan referred to in condition 5-4 are met, or within two years of a written request from the Department of Parks and Wildlife, the proponent will arrange to cede the Conservation Area to the Conservation Commission of Western Australia.

5. Change to condition 6-2

Condition 6-2 of Ministerial Statement 863 is deleted and replaced with:

6-2 The proponent shall implement the Water Management Strategy that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO.

6. Add new condition

8-1 The Proponent shall implement the management action specified in sections 3.1, 3.4. 3.5. 4.2, 4.4 and 4.5 of the Construction Environmental Management Plan Version 7 dated 5 November 2013, or the relevant sections of subsequent revisions as approved by the CEO.

7. Add new condition

9-1 The Proponent shall implement the management actions specified in the sections 3.1, 3.3, 3.5 and 4.1 of the Environmental Management Plan Version 6 dated 14 October 2013, or the relevant sections of subsequent revisions as approved by the CEO.

[Signed 18 February 2015]

Albert Jacob MLA
MINISTER FOR ENVIRONMENT; HERITAGE

Term or Phrase	Definition
CEO	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the *Environmental Protection Act 1986*, or his delegate.
EPA	Environmental Protection Authority
EP Act	*Environmental Protection Act 1986*

APPENDIX 7

Ministerial Statement 1043

Published on: 6 December 2016 Statement No. 1043

STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL (PURSUANT TO THE PROVISIONS OF SECTION 46(4) OF THE *ENVIRONMENTAL PROTECTION ACT 1986*)

FINAL SUPERLOT SUBDIVISION (VARIOUS LOTS, PATTERSON ROAD, ROCKINGHAM – WAPC SUBDIVISION APPLICATION 153179)

Proposal: Subdivision of various lots, Patterson Road, Rockingham identified in WAPC Subdivision Application 153179

Proponent: Western Australian Land Authority trading as LandCorp

Proponent Address: Level 6
Wesfarmers House
40 The Esplanade
Perth WA 6000

Inquiry into Conditions Assessment Number: 2086

Report of the Environmental Protection Authority's Inquiry into Conditions: 1584

Strategic Proposal Statement Number: 863

By Section 45A Notice No. 3 dated 10 August 2016, the Minister for Environment gave notice that the implementation agreement previously made and referred to in Ministerial Statement No. 863 dated 26 May 2011 takes effect in relation to this derived proposal. The Minister for Environment also gave notice that conditions 1-1, 1-2, 3-1, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 5-1, 5-2, 5-4, 5-5, 5-6 and 6-2 of Ministerial Statement 863 apply to this derived proposal subject to any change of the conditions made under sections 46 or 46C of the *Environmental Protection Act 1986*.

Pursuant to section 46 of the *Environmental Protection Act 1986* implementation conditions 5-1, 5-2, 5-4, 5-5 and 6-2 in Ministerial Statement No. 863 dated 26 May 2011, as applied only to this derived proposal, are amended as follows:

1. Change to condition 5-1

Condition 5-1 of Ministerial Statement 863 is deleted and replaced with:

5-1 The proponent shall maintain the fence that it established around the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, until such time as the Conservation Area is ceded to the Conservation and Parks Commission.

2. Change to condition 5-2

Condition 5-2 of Ministerial Statement 863 is deleted and replaced with:

5-2 The proponent shall maintain the Conservation Area, as delineated in Figure 1 and defined by the spatial coordinates provided in Table 2 of Statement 863, free of rubbish until such time as the land is ceded to the Conservation and Parks Commission.

3. Change to condition 5-4

Condition 5-4 of Ministerial Statement 863 is deleted and replaced with:

5-4 The proponent shall implement the Initial Conservation Area Management Plan that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO, until the Conservation Area is ceded to the Conservation and Parks Commission.

4. Change to condition 5-5

Condition 5-5 of Ministerial Statement 863 is deleted and replaced with:

5-5 When the completion criteria in Section 5.3 of the Initial Conservation Area Management Plan referred to in condition 5-4 are met, or within two years of a written request from the Department of Parks and Wildlife, the proponent will arrange to cede the Conservation Area to the Conservation and Parks Commission.

5. Change to condition 6-2

Condition 6-2 of Ministerial Statement 863 is deleted and replaced with:

6-2 The proponent shall implement the Water Management Strategy that was approved by the CEO on 23 December 2013, or subsequent revisions as approved by the CEO.

6. New conditions 8 and 9

The following conditions are added after condition 7:

8 Construction Environmental Management Plan

8-1 The Proponent shall implement the management action specified in sections 3.1, 3.4. 3.5. 4.2, 4.4 and 4.5 of the Construction Environmental Management Plan Version 7 dated 5 November 2013, or the relevant sections of subsequent revisions as approved by the CEO.

9 Environmental Management Plan

9-1 The Proponent shall implement the management actions specified in the sections 3.1, 3.3, 3.5 and 4.1 of the Environmental Management Plan Version 6 dated 14 October 2013, or the relevant sections of subsequent revisions as approved by the CEO.

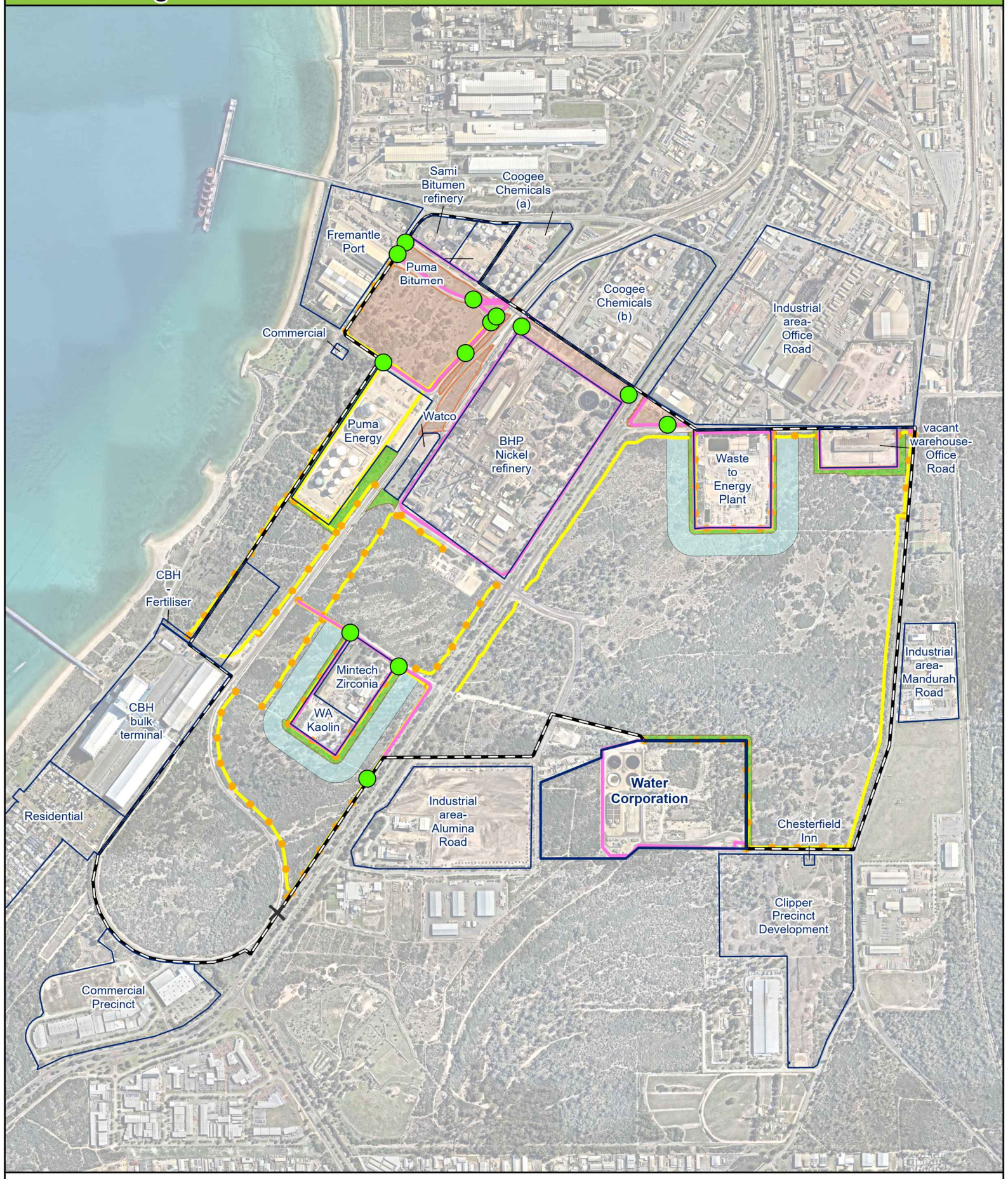
[Signed 5 December 2016]

Albert Jacob MLA
MINISTER FOR ENVIRONMENT; HERITAGE

APPENDIX 8

Bushfire Mitigation Mapping

Bushfire mitigation works



Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Existing Gate
- Block access

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Slash
- Mulch
- Grass Tree burn

0 150 300 600

Metres

Datum/Projection:
GDA 1994 MGA Zone 50

N

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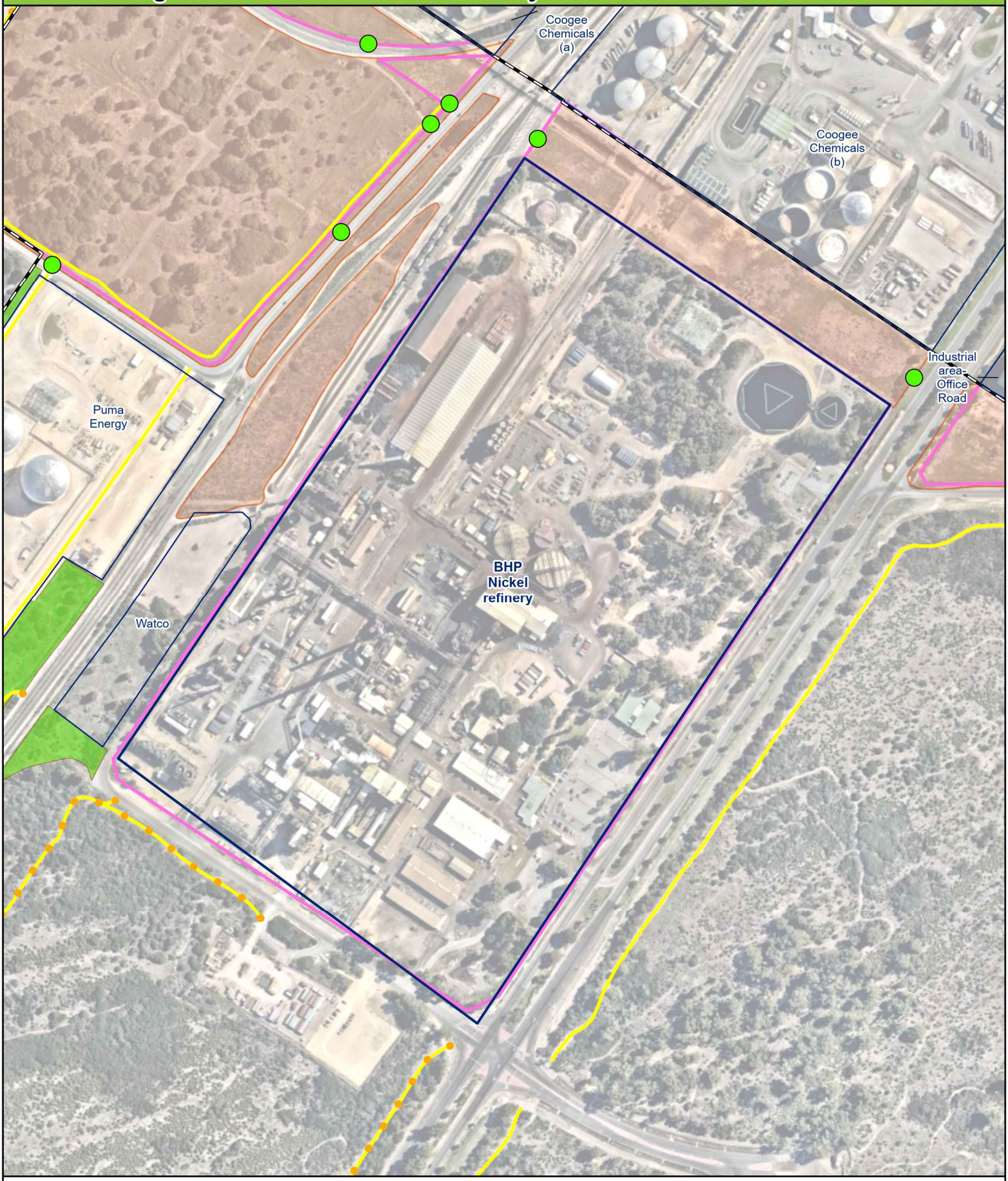
Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - BHP Nickel refinery



Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Existing Gate

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Slash
- Mulch

0 40 80 160
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - CBH - Fertiliser

Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Firebreak upgrade
- Firebreak

Bushfire mitigation

- Grass Tree burn

0 20 40 80
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - CBH bulk terminal

Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Firebreak upgrade
- Firebreak

0 30 60 120
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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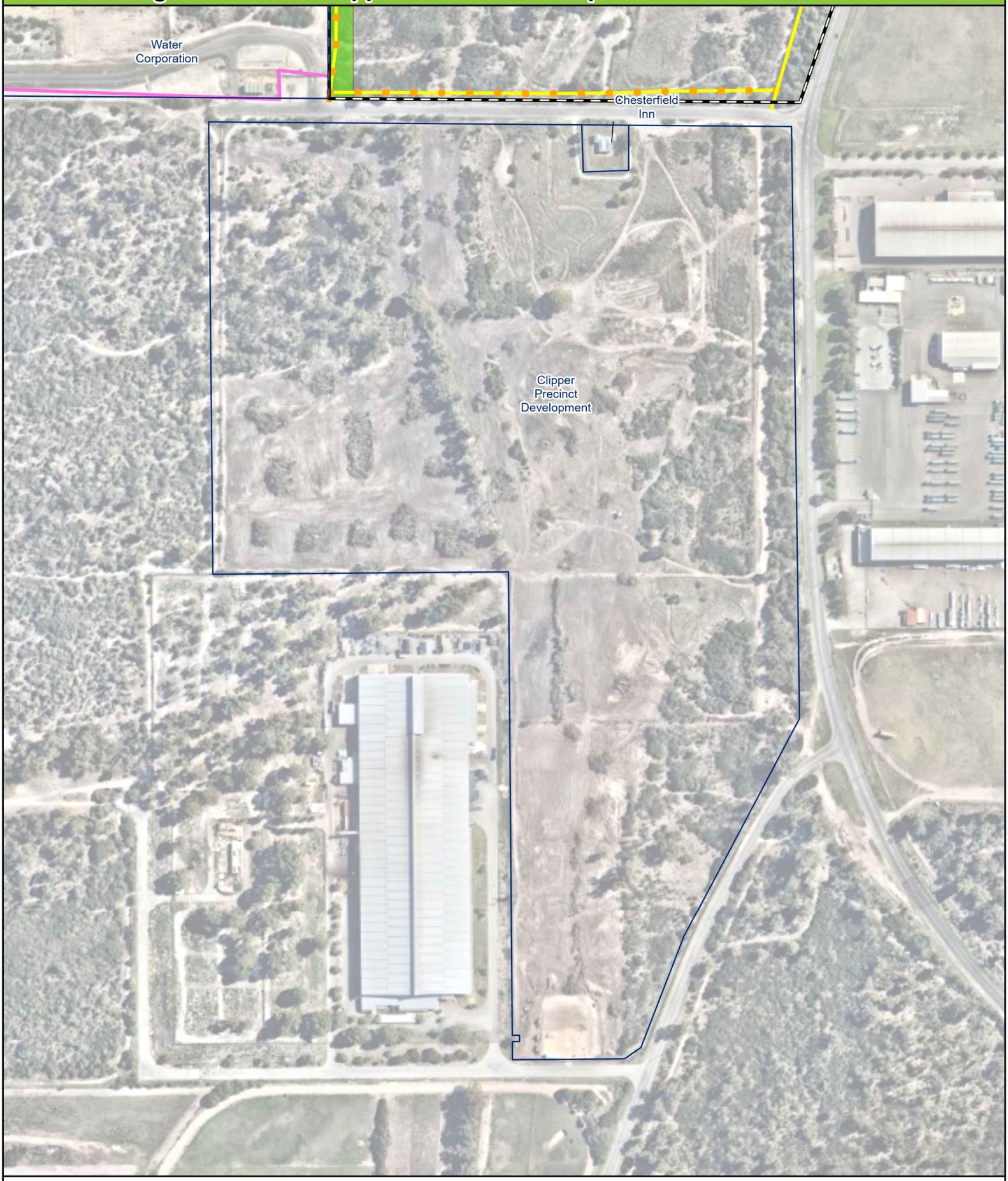
Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Clipper Precinct Development & Chesterfield Inn



Legend

Subject Site

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Mulch

0 30 60 120
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Commercial Precinct

Legend

- Subject Site
- Identified asset

0 30 60 120
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Commercial

Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Slash
- Mulch

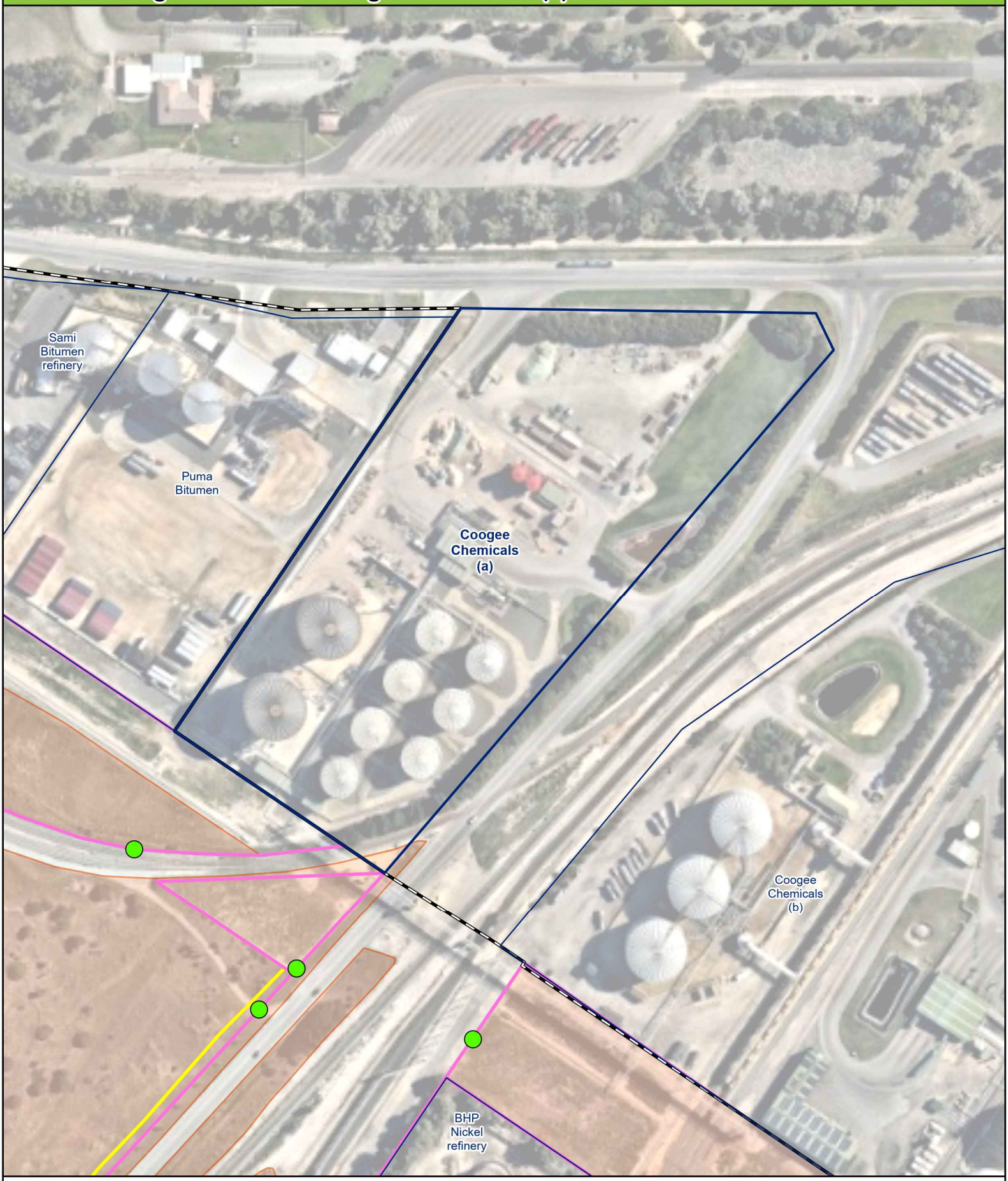
0 5 10 20
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

eco logical AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Coogee Chemicals (a)



Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Existing Gate

Bushfire mitigation

- Existing fence line
- Firebreak

Bushfire mitigation

- Slash

0 20 40 80
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Coogee Chemicals (b)

Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Existing Gate

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Slash
- Mulch
- Grass Tree burn

0 30 60 120
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Fremantle Port

Legend

- Subject Site
- Identified asset

Bushfire mitigation
- Existing Gate

Bushfire mitigation
- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation
- Slash

0 25 50 100
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

ecological AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Industrial area- Alumina Road

Legend

- Subject Site
- Identified asset

Bushfire mitigation
- Existing Gate

Bushfire mitigation
- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation
- Mulch
- Grass Tree burn

0 37.5 75 150
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Industrial area- Mandurah Road

Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Firebreak

0 20 40 80

Metres

Datum/Projection:
GDA 1994 MGA Zone 50

N

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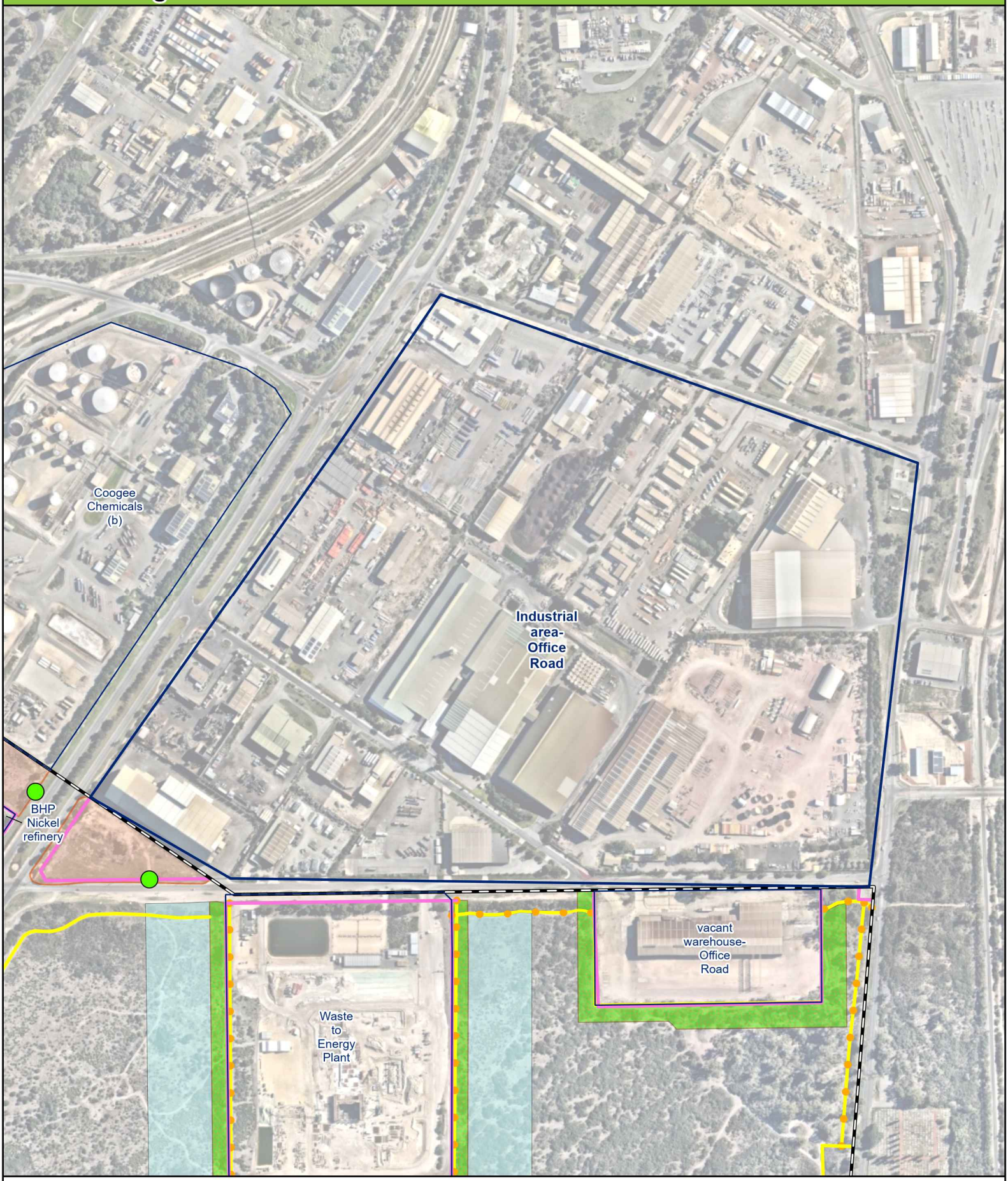
Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Industrial area- Office Road



Legend

- Subject Site
- Identified asset

Bushfire mitigation
- Existing Gate

Bushfire mitigation
- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation
- Slash
- Mulch
- Grass Tree burn

0 50 100 200
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

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A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Mintech Zirconia & WA Kaolin

Legend

- Subject Site
- **Bushfire mitigation**
  - Existing Gate
- **Bushfire mitigation**
  - Firebreak upgrade
  - Existing fence line
  - Firebreak
- **Bushfire mitigation**
  - Mulch
  - Grass Tree burn

0 30 60 120
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

eco logical AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Puma Bitumen

Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Existing Gate

Bushfire mitigation

- Existing fence line
- Firebreak

Bushfire mitigation

- Slash

0 20 40 80
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

ecological AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Puma Energy

Legend

- Subject Site
- Identified asset

Bushfire mitigation
- Existing Gate

Bushfire mitigation
- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation
- Slash
- Mulch

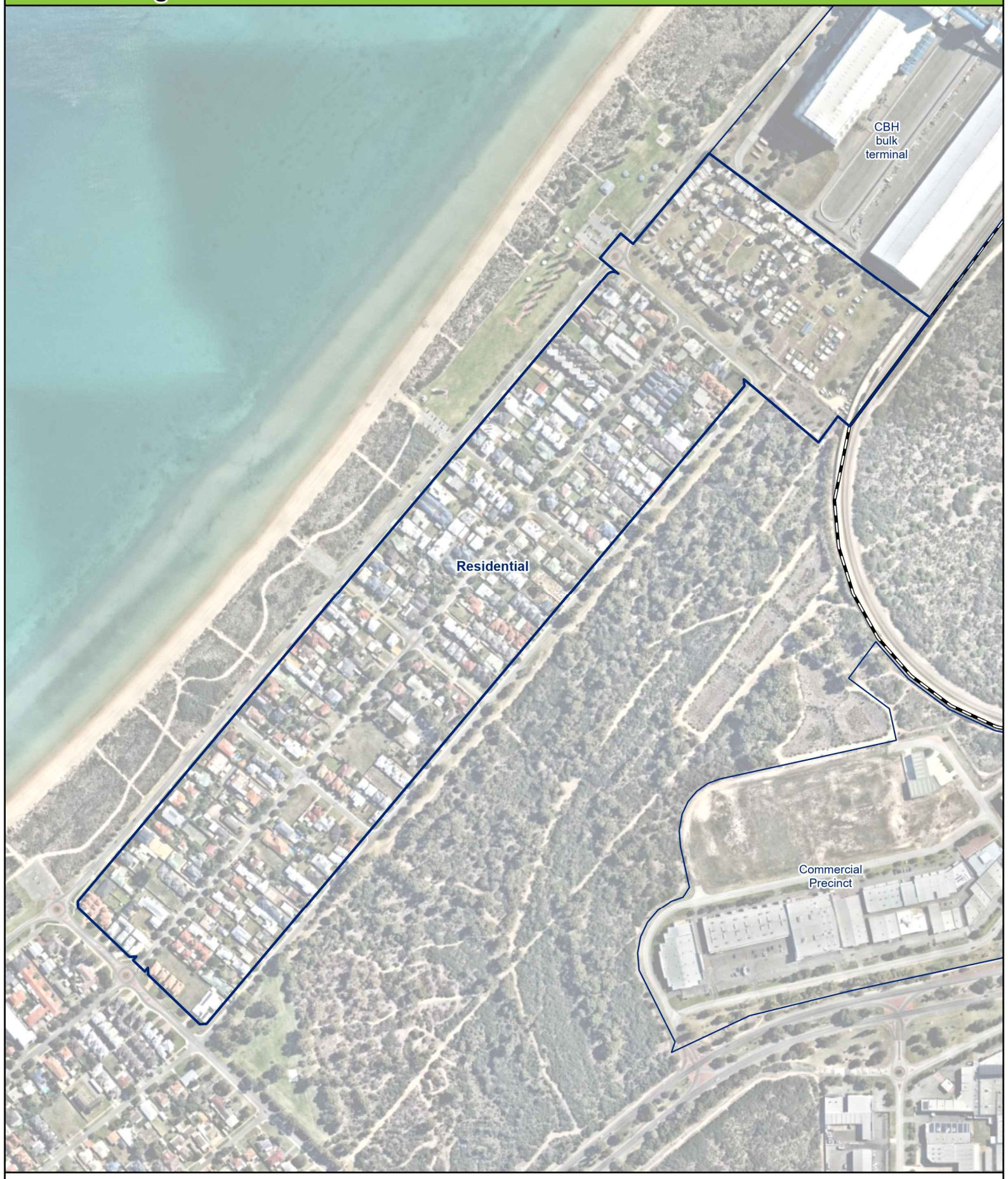
0 30 60 120
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

eco logical AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Residential



Legend

- Subject Site
- Identified asset

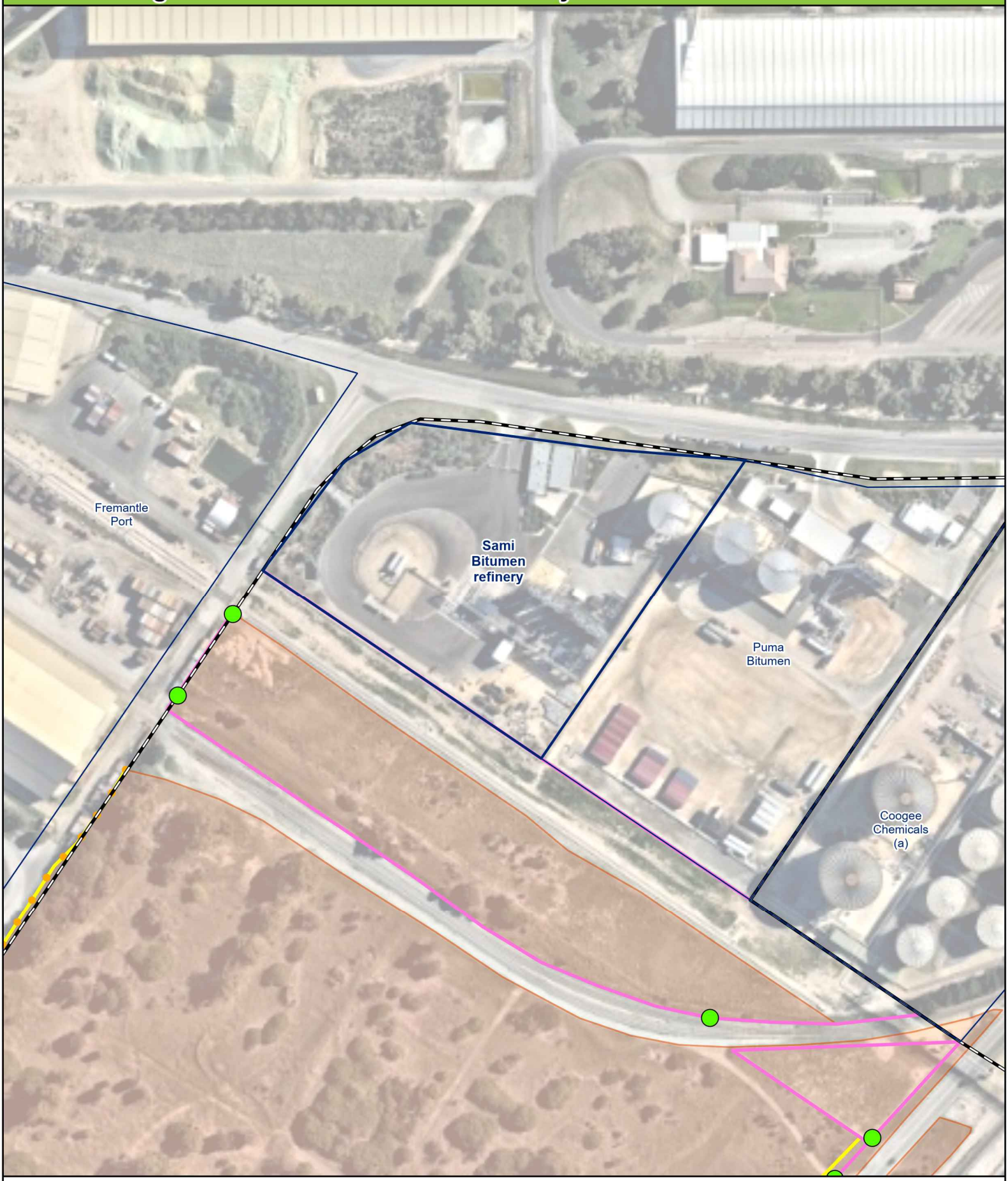
0 50 100 200
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

eco logical AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Sami Bitumen refinery



Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Existing Gate

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Slash

0 20 40 80
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

eco logical AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - vacant warehouse- Office Road

Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Mulch
- Grass Tree burn

0 20 40 80
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

ecological AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Waste to Energy Plant

Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Existing Gate

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Slash
- Mulch
- Grass Tree burn

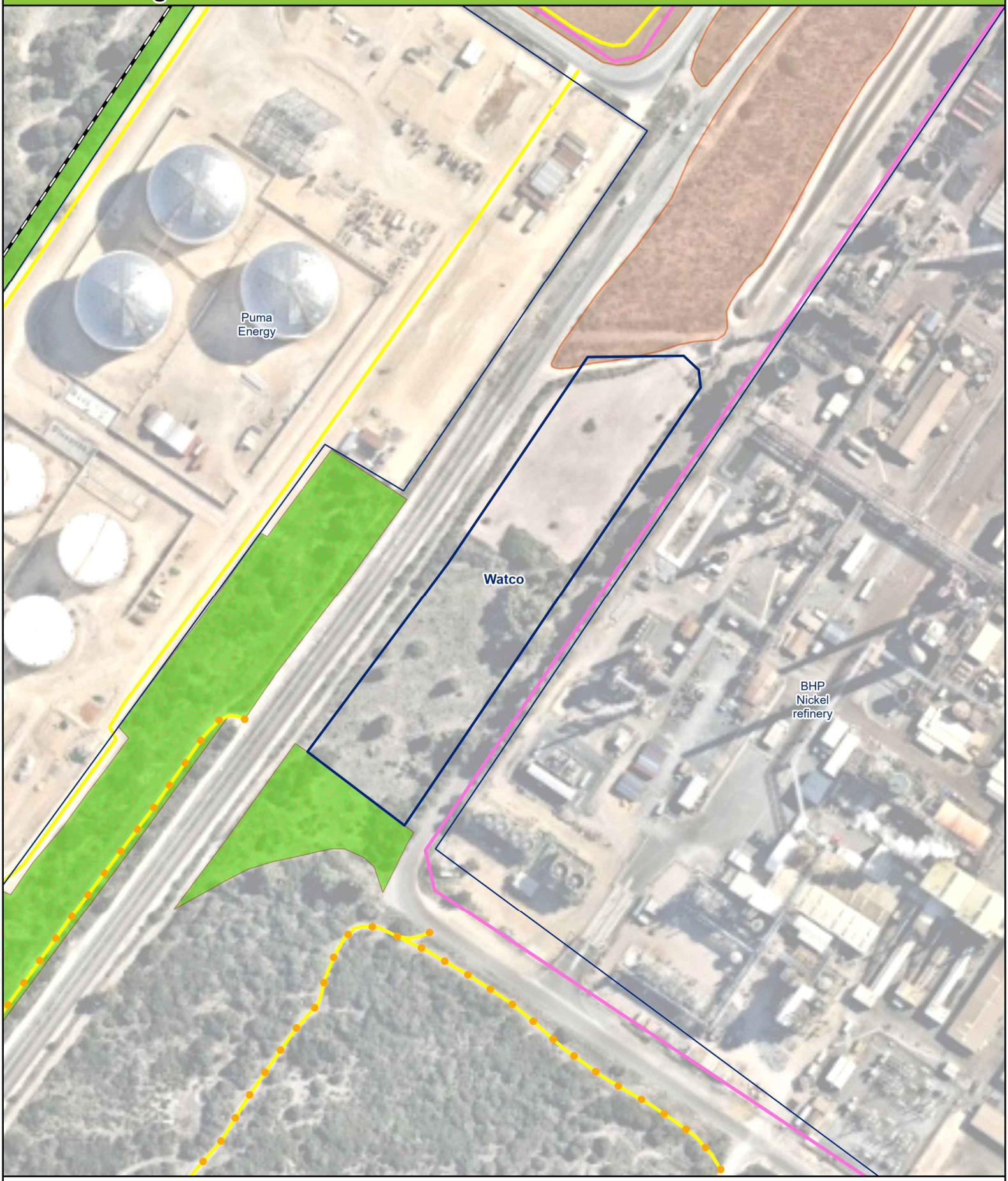
0 20 40 80
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

eco logical AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Watco



Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Firebreak upgrade
- Existing fence line
- Firebreak

Bushfire mitigation

- Slash
- Mulch

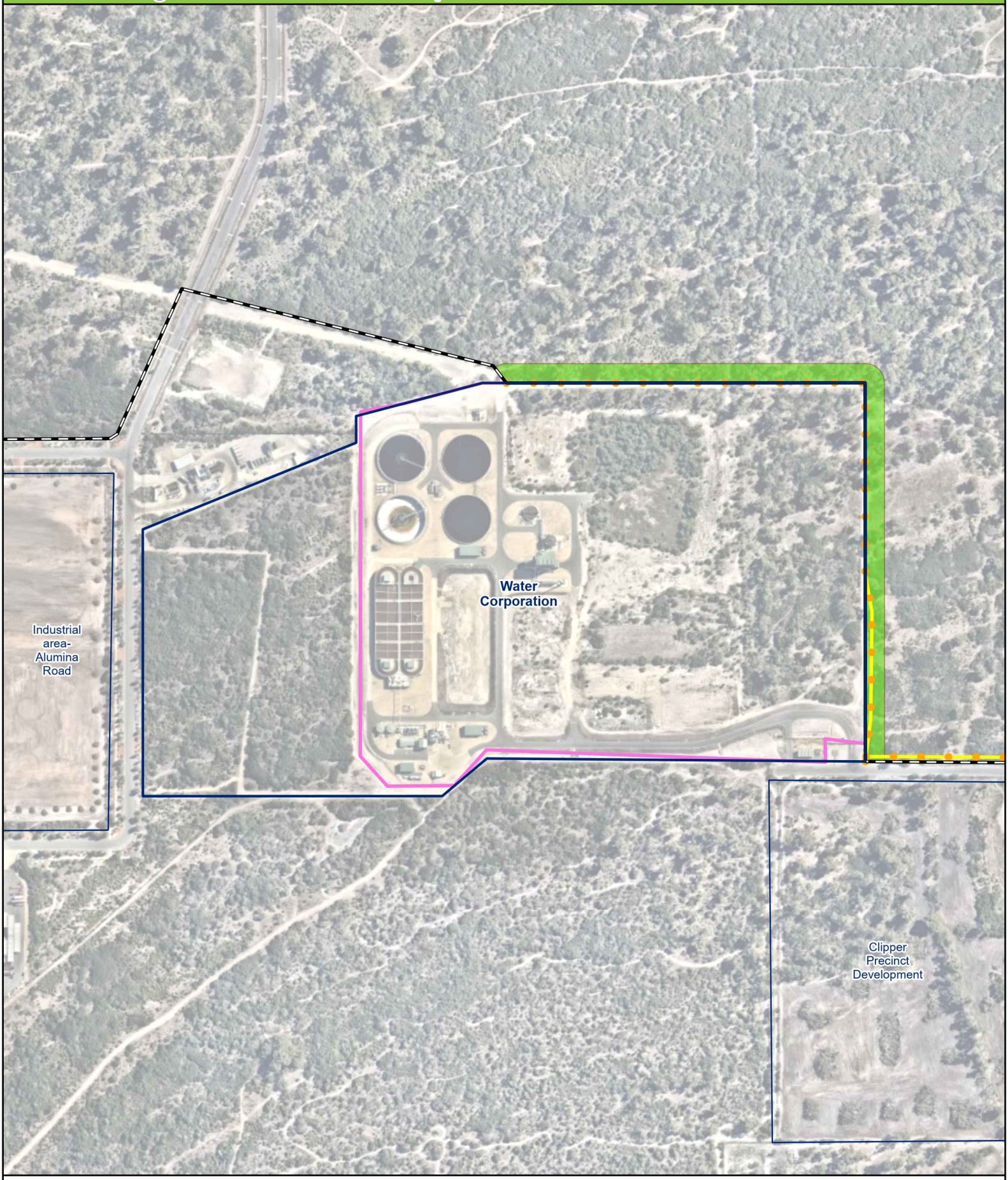
0 20 40 80
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

eco logical AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

Bushfire mitigation works - Water Corporation



Legend

- Subject Site
- Identified asset

Bushfire mitigation

- Firebreak upgrade
- Existing fence line

Bushfire mitigation

- Mulch

0 40 80 160
Metres
Datum/Projection:
GDA 1994 MGA Zone 50

N

eco logical AUSTRALIA
A TETRA TECH COMPANY

Project: 18411-SM Date: 26/10/2021

APPENDIX 9

Soil Validation Report

12 April 2022

Rachael Major, Acting Manager, Environment and Resources
Water Corporation

Email: Rachael.Major@watercorporation.com.au

Dear Rachael,

SUBJECT: WATER CORPORATION, EAST ROCKINGHAM WWTP - SOIL VALIDATION REPORT

Hazrad Australia Pty Ltd (Hazrad) presents the following letter report in relation to the remediation and validation of soil at the East Rockingham Wastewater Treatment Plant, Chesterfield Rd, East Rockingham (the Site).

Project Background

Hazrad was commissioned by the Water Corporation to conduct soil remediation (excavation and disposal) works at the Site (Figure 1) in response to a diesel spill of approximately 1,800 L. The spill occurred at the southern site boundary. It is understood that the spill was caused by individuals who broke into the site to steal diesel from the onsite generator's fuel tank. The hose used by the thieves to syphon fuel from the tank was left on the ground and continued syphoning after they had left. The diesel impact covered an area of approximately 40 m^2 that lay across the southern site boundary (Figure 1).

Scope of Work

The scope of work for this report included the following:

- Summarise the remediation and validation work undertaken on-site.
- Tabulation of the validation soil sample results and comparison against relevant ecological and human health criteria.
- Interpretation of the effectiveness of remediation works based on the validation soil sample results.

Methodology

Remediation and Validation Works

The location of the soil remediation footprint and validation soil samples are shown on Figure 1.

Two passes of remediation excavation were completed by Hazrad for this project. The depth and lateral extent of the excavation, and the selection of validation sample locations was guided by the observed lateral extent of the diesel spill , visual, PID and olfactory evidence collected during the work. The first pass occurred over two days, 7 and 8 April 2022. A second pass limited excavation occurred on 19 April 2022.

Eight validation soil samples (V1-V8) were collected from the sides and base of the first pass excavation footprint. Two of the first pass validation samples failed (V1 and V4); therefore, a second pass limited excavation was conducted. The extent of the second pass excavation was similarly guided by visual, PID and olfactory evidence. No odours or staining was noted within the excavation footprint. Validation samples (V9 and V10) were collected from the base additional excavation areas (Figure 1). These additional validation samples passed the clean-up criteria. Therefore, the remediation was deemed complete.

All validation samples were submitted to NATA accredited laboratories for total recoverable hydrocarbon (TRH) and benzene, toluene, ethylbenzene and total xylenes (BTEX) analysis.

Photographs of the excavated soil footprint are presented in Appendix A. The excavation depth was variable across the total area. The depth of each validation sample is indicated Table 1. The deepest part of the excavation was 1 m bgl at the location of validation sample, V5.

In total, approximately 40 m^3 of material was excavated and removed from the site. Excavated soils were temporarily stored on-site in skip bins while awaiting transfer to a suitably licensed waste facility.

Assessment Criteria

Based on a commercial/industrial land use at the Site and public open space outside the Site, soil validation laboratory results will be compared with the following ecological and human health guideline criteria:

- Environmental investigation levels – Ecological Significance.
- Environmental investigation levels - Commercial/industrial land uses (EIL-F).
- Ecological screening levels (fine soil) – Area of Ecological Significance.

- Ecological screening levels (fine soil) - Commercial/industrial land uses (ESL-D).
- Health screening levels – Direct contact commercial/industrial land uses, Sand (HSL-D).
- Health screening levels – Intrusive Maintenance Worker commercial/industrial land uses (HSL-D).
- Health screening levels - Vapour Intrusion commercial/industrial land uses (HSL D, Silt (0 - <1 m).
- Management limits - Residential, parkland and public open spaces
- Management limits – Commercial/industrial

Validation Results

Soil validation samples were collected after each pass of remediation excavation as follows:

- First pass validation samples, V1 – V8, 8/04/2022.
- Second pass validation samples, V9 - V10, 19/04/2022.

Validation soil samples were submitted to Eurofins/ARL (primary and duplicate samples) and SGS Australia (triplicate sample). Laboratory chain of custody and certificate of analysis documentation is included in Appendix B.

First Pass Validation (8/04/2022)

Tabulated laboratory results are presented with relevant assessment criteria in Table 1 and summarised as follows:

- All BTEX analytes were below the adopted assessment criteria.
- **Sample V1 (TRH F2 result 530 mg/kg)** which exceeds the following criteria:
    - ESL - Urban residential and public open space (TRH F2: 120 mg/kg); and
    - ESL - Commercial/Industrial (TRH F2: 170 mg/kg).
- **Sample V4 (TRH F1 result 3,500 mg/kg, TRH F2 result 210 mg/kg and TRH F3 result 3,000 mg/kg**) which exceeds the following criteria:

- ESL - Urban residential and public open space (TRH F1: 180 mg/kg, TRH F2: 120 mg/kg and TRH F3: 1,300 mg/kg);
- ESL - Commercial/Industrial (TRH F1: 215 mg/kg, TRH F2: 170 mg/kg, and TRH F3: 2,500 mg/kg);
- HSL D – Vapour Intrusion – Commercial/Industrial (TRH F1: 250 mg/kg);
- Management Limits - Residential, parkland and public open spaces (TRH F1: 800 mg/kg);
- Management Limits - Commercial/Industrial (TRH F1: 800 mg/kg);

- All other TRH analytes were below the adopted assessment criteria.

Second Pass Validation (19/04/2022)

The second pass validation analytical results are presented with relevant assessment criteria in Table 1 and summarised as follows:

- All BTEX analytes were below the adopted assessment criteria.
- All TRH analytes were below the adopted assessment criteria.

Quality Assurance/Quality Control

During the first pass validation, one duplicate soil sample (DUP1) and one triplicate soil sample (TRIP1)) were collected and analysed for the same suite of analytes as the primary sample (V3).

The RPD analysis results for DUP1 on TRH >C10 - C16 less N (F2) was 55%, which is above the adopted 30% criterion. HAZRAD considers that his result does not impact on the validity or findings of this report. RPD analysis is skewed when the results being compared are within five times the laboratory limit of reporting (LOR). That is the case here where the LOR was 20 mg/kg and result in question is 31 mg/kg. To further address the issue HAZRAD has adopted the DUP1 result (31 mg/kg TRH F2) as a worst-case scenario for this validation sample location (V3). At 31 mg/kg, this concentration is an order of magnitude below the adopted cleanup criteria.

Therefore, the sampling and analysis procedures applied by HAZRAD and the laboratories (Eurofins-ARL and SGS Australia) were reproducible and the results suitable for use within this report.

Assumptions and Exclusions

The conclusions drawn here have been developed on the assumption the data collected accurately represents the conditions at the site. Uncertainties pertaining to the data collected include the following:

- Remediation works were conducted, and the validation sampling program was designed and implemented in the field based on field observations.
- TRH and BTEX were the only contaminants of concern.
- The remediation work was conducted in a specific area of the site as directed by the client. Other areas of site have not been assessed.
- Spatial uncertainty: no sampling program can provide complete certainty that no contamination exists anywhere on a site.
- Appropriate and relevant guidelines and standards have been followed in all parts of the assessment.
- Although uncertainties exist, the assumptions made are well founded and give confidence that the conclusions reached are sound and justifiable.

Conclusions and Recommendations

The laboratory results demonstrate that no exceedances of adopted assessment criteria were present in the residual soils beneath the location of the diesel spill following the second round of validation. Validation results demonstrate that the diesel impacted soils have been successfully delineated and remediated. Contaminated spoil that was excavated as part of the works has been removed from the site and disposed of at Eclipse Resources, 106 Abercrombie Rd, Postans WA 6167. The landfill receipts are attached as Appendix C.

This report should be read in conjunction with the Schedule - Statement of Limitations.

Should you have any queries regarding the above, please contact the undersigned on 0429 647 698.

Kind Regards,

Ashley Sheardown
Environmental Scientist

Attachments:

Schedule

- Statement of Limitations

Figures

- Figure 1 – Site Location, Site Layout and Validation Sample Locations

Tables

- Table 1 - Soil Analytical Results

Appendices

- Appendix A: Photo Log
- Appendix B: Laboratory Documentation
- Appendix C: Landfill Receipts - Eclipse Soils, Postans

SCHEDULE

Statement of Limitations

Copyright Statement

Scope of Services

This environmental report ("this report") has been prepared for the sole benefit and exclusive use of the Client for the purpose for which it was prepared in accordance with the agreement between the Client and HAZRAD ("the Agreement"). However, in addressing the requirements of the Contaminated Sites Act 2003, an Accredited Contaminated Sites Auditor may be engaged by the Client to undertake review of this report, prior to its submission to the DWER. The report shall be made available and can be relied upon for the purposes of the Contaminated Sites Act.

HAZRAD disclaims any and all liability with respect to any use of or reliance upon this report for any other purpose whatsoever.

In particular, it should be noted that this report is based on a scope of services defined by the Client, and is limited by budgetary and time constraints, the information supplied by the Client (and its agents) and, in some circumstances, access and/or site disturbance constraints.

The scope of services did not include any assessment of the title to or ownership of the properties, buildings and structures referred to in this report, or the application or interpretation of laws in the jurisdiction in which those properties, buildings and structures are located.

Reliance on Data

In preparing this report, HAZRAD has relied on data, surveys, analyses, designs, plans and other information provided by the Client (or its agents), other individuals and organisations ("the data").

Except as otherwise stated in this report, HAZRAD has not verified the accuracy or completeness of the data. HAZRAD does not represent or warrant that the data is true or accurate, and disclaims any and all responsibility or liability with respect to the use of the data.

To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in this report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data.

HAZRAD does not accept any responsibility or liability for any incorrect or inaccurate conclusions should any data be incorrect, inaccurate or incomplete or have been concealed, withheld, misrepresented or otherwise not fully disclosed to HAZRAD.

The conclusions must also be considered in light of the agreed scope of services (including any constraints or limitation therein) and the methods used to carry out those services, both of which are as stated or referred to in this report.

Environmental Conclusions

In accordance with the scope of services, HAZRAD has conducted environmental field monitoring and/or testing in the preparation of this report. The nature and extent of monitoring and/or testing conducted is described in this report.

On all sites, varying degrees of non-uniformity of vertical and horizontal conditions in media (soil, water, air, waste or other media as described in the report) are encountered. Hence no monitoring, common testing or sampling technique can eliminate the possibility that monitoring or testing results/samples are not totally representative of media conditions encountered. The conclusions are based on the data and the environmental field monitoring and/or testing actually undertaken, and are therefore merely indicative of the environmental condition of the site at the time of preparing this report, including the presence or otherwise of contaminants or emissions. It should be recognised that site conditions, including the extent and concentration of contaminants, can change.

Within the limitations imposed by the scope of services, the monitoring, testing, sampling and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. To the maximum extent permitted by law, no other warranty, express or implied, is made.

Report for Benefit of Client

This report is confidential. Neither the whole nor any part of this report, or any copy or extract thereof, may be disclosed or otherwise made available to any third party without the prior written approval of HAZRAD.

HAZRAD accepts no liability or responsibility whatsoever in respect of any use of or reliance upon this report, by any person or organisation who is not a party to the Agreement. Reliance on this report by any person who is not a party to the Agreement is expressly prohibited. Any representation in this report is made only to the parties to the Agreement.

HAZRAD assumes no responsibility and disclaims any and all liability to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in this report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in this report (including without limitation matters arising from any negligent act or omission of HAZRAD or for any loss or damage suffered by any other party using or relying on the matters dealt with or conclusions expressed in this report, even if HAZRAD has been advised of the possibility of such use or reliance).

Other parties should not rely on this report or the accuracy or completeness of any conclusions contained in this report, and should make their own enquiries and obtain independent advice in relation to such matters.

If an Auditor is engaged by the Client to undertake review of this report, it shall be made available subject to the terms and conditions of the agreement between the Client and HAZRAD and the caveats in this statement.

Other Limitations

This report is intended to be read in its entirety, and sections or parts of this report should therefore not be read and relied on out of context.

HAZRAD will not be liable to update or revise this report to take into account any events or circumstances or facts becoming apparent after the date of this report.

FIGURE

Legend

- Cadastre
- First Pass Excavation Area
- Second Pass Excavation Area
- First Pass Validation Sample Location
- Second Pass Validation Sample Location

0 0.75 1.5 3

Metres

Scale: 1:100 @ A4

N

- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

LOCALITY MAP

HAZRAD AUSTRALIA

JOB NO	DATE
ERSR	5/05/2022

HORIZONTAL DATUM AND PROJECTION
GDA 1994 MGA Zone 50

Chesterfield Road, East Rockingham

Figure 1
Excavation and Soil Validation Sample Locations

- AERIAL PHOTOGRAPHY SOURCED NEARMAPS 05.04.22

Z:\Hazrad\East Rockingham Soil Remediation\Figures\ERSR_F01 Excavation and Soil Validation Sample Locations_220505.mxd

ENVIRONMAPS | t: 0406 560 006 | Environmental Mapping Solutions | www.environmaps.com.au

TABLE

08 9418 4200
www.hazrad.com.au
PO BOX 1049 Bibra Lake DC WA 6965

Table 1
Soil Analytical Results - Monocyclic Aromatic Hydrocarbons & Total Recoverable Hydrocarbons

				BTEX					Naphthalene	TRH					
				Benzene	Toluene	Ethylbenzene	m+p-Xylene	o-Xylene		C6 - C10	C6 - C10 less BTEX (F1)	TRH >C10 - C16	TRH >C10 - C16 less N (F2)	TRH >C16 - C34 (F3)	TRH >C34 - C40 (F4)
EIL - Ecological significance (EIL-A)				NE	NE	NE	NE		10	NE	NE	NE	NE	NE	NE
EIL - Commercial and industrial (EIL-D)				NE	NE	NE	NE		370	NE	NE	NE	NE	NE	NE
ESL - Urban residential and public open space			**Fine soil**	65	105	125	45		NE	NE	180	NE	120	1,300	5,600
ESL - Commercial/Industrial			**Fine soil**	95	135	185	95		NE	NE	215	NE	170	2,500	6,600
Direct Contact - HSL-D Commercial/Industrial				430	99,000	27,000	81,000		11,000	NE	26,000	NE	20,000	27,000	38,000
Direct Contact - HSL Intrusive Maintenance Worker				1,100	120,000	85,000	130,000		29,000	NE	82,000	NE	62,000	85,000	120,000
Vapour Intrusion - HSL D (Commercial/Industrial)			**Silt (0 - <1 m)**	4	NL	NL	230		NL	NE	250	NE	NL	NE	NE
Vapour Intrusion - HSL D (Intrusive Maintenance Worker)			**Sand (0 - <2 m)**	77	NL	NL	NL		NL	NE	NL	NE	NL	NE	NE
Management Limits - Residential, parkland and public open spaces			**Fine soil**	NE	NE	NE	NE		NE	NE	800	NE	1,000	3,500	10,000
Management Limits - Commercial/Industrial			**Fine soil**	NE	NE	NE	NE		NE	NE	800	NE	1,000	5,000	10,000
			LOR	0.1	0.1	0.1	0.2		0.5	2	2	20	20	50	50
Sample ID	**Lab ID**	**Sample Depth (m)**	**Date Sampled**	mg/kg											
First Remediation															
V1	L22-Ap0022511	**0.1**	08/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		< 0.5	69	67	< 20	530	750	< 50
V2	L22-Ap0022512	**0.4**	08/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		< 0.5	< 2	< 2	< 20	< 20	< 50	< 50
V3	L22-Ap0022513	**0.8**	08/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		< 0.5	< 2	< 2	20	20	< 50	< 50
DUP1	L22-Ap0022519	**0.8**	08/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		< 0.5	< 2	< 2	31	31	< 50	< 50
RPD (Primary Sample - V3)				#	#	#	#		#	#	#	***55***	***55***	#	#
TRIP1	ME326303.001	**0.8**	08/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		<0.1	<10	<10	18	18	<20	<20
RPD (Primary Sample - V3)				#	#	#	#		#	#	#	*10*	*10*	#	#
V4	L22-Ap0022514	**0.3**	08/04/2022	< 0.1	< 0.1	0.3	2		2.5	< 2	3,500	3500	210	3000	< 50
V5	L22-Ap0022515	**1.0**	08/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		< 0.5	< 2	< 2	< 20	< 20	< 50	< 50
V6	L22-Ap0022516	**0.9**	08/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		< 0.5	< 2	< 2	< 20	< 20	< 50	< 50
V7	L22-Ap0022517	**0.3**	08/04/2022	<0.1	<0.1	<0.1	<0.5		<0.1	<10	<10	<10	<10	<20	<20
V8	L22-Ap0022518	**0.1**	08/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		< 0.5	< 2	< 2	< 20	< 20	< 50	< 50
V9	L22-Ap0038811	**0.2**	19/04/2022	<0.1	<0.1	<0.1	<0.2		< 0.5	<20	<20	< 50	< 50	<100	<100
V10	L22-Ap0038812	**0.4**	19/04/2022	< 0.1	< 0.1	< 0.1	< 0.2		< 0.5	<20	<20	< 50	< 50	<100	<100

Notes:
NE = Regulatory guideline not established
NL = Not limiting
< Indicates sample results below the laboratory limit of reporting (LOR)
# indicates RPD not calculable, as primary and/or replicate concentrations <LOR.
Red font indicates RPD > 30%
- Not Analysed

Regulatory Guidelines:

Guidelines are derived from the National Environment Protection (Assessment of Site Contamination) Measure (NEPC, 2013), the Assessment and Management of Contaminated Sites (DER, 2014) and CRC CARE Technical Report No. 10 (2011) .

shading indicates concentration exceeds the NEPC (2013) Ecological Investigation Levels (EIL)
shading indicates concentration exceeds the NEPC (2013) Ecological Screening Levels (ESL)
shading indicates concentration exceeds the CRC CARE Health Screening Levels (HSL) for Direct Contact
shading indicates concentration exceeds the CRC CARE Health Screening Levels (HSL) for Vapour Intrusion for Sand
shading indicates concentration exceeds the NEPC (2013) Management Limits for TPH

HAZRAD AUSTRALIA

APPENDIX A – Photo Log

Photo: 1
Description: Diesel spill site prior to excavation - looking southeast.
Details: Photo taken: 7/4//2022

Photo: 2
Description: First pass excavation looking north-west
Details: Photo taken: 8/4/2022

Photo: 3
Description: First pass excavation looking east.
Details: Photo taken: 8/4/2022

Photo: 4
Description: First pass excavation area with caution tape
Details: Photo taken: 8/4/2022

Photo: 5
Description: Second pass excavation (V4/V9 validation area) looking west.
Details: Photo taken: 19/4/2022

Photo: 6
Description: Second pass excavation (V1/V10 validation area) looking east.
Details: Photo taken: 8/4/2022

APPENDIX B – Laboratory Documentation

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

Sydney Laboratory
Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory
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07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company	HazRad	Project №		Project Manager	David Reddie
Address	34 Cocos Dr, Bibra Lake	Project Name	WCER	EDD Format (ESdat, EQuIS etc)	
Contact Name	David Reddie				
Phone №	0497 007 081				
Special Directions					
Purchase Order					
Quote ID №					

Sampler(s)		
Handed over by	Ashley Sheardown	
Email for Invoice	office@hazrad.com.au	
Email for Results	david@hazrad.com.au	

Analyses — Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

Containers — Change container type & size if necessary.

Required Turnaround Time (TAT) — Default will be 5 days if not ticked.

♦Surcharge will apply

- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦ ☐ 1 day♦
- ☐ 2 days♦ ☐ 3 days♦
- ☑ 5 days (Standard)
- ☐ Other( )

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	TRH (NEPM Suite)	BTEXN	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
21	V1	8/04/22	S	X	X							1		
22	V2	8/04/22	S	X	X							1		
23	V3	8/04/22	S	X	X							1		
24	V4	8/04/22	S	X	X							1		
25	V5	8/04/22	S	X	X							1		
26	V6	8/04/22	S	X	X							1		
27	V7	8/04/22	S	X	X							1		
28	V8	8/04/22	S	X	X							1		
29	DUP1	8/04/22	S	X	X							1		
30														
	Total Counts			9	9							9		

Method of Shipment	☐ Courier (#	☑ Hand Delivered	☐ Postal	Name		Signature		Date		Time	
Laboratory Use Only	Received By	Caitlyn Lobsey	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	8/4/22	Time	5 pm	Temperature	22.6°C
	Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date		Time		Report №	

Hazrad Australia Pty Ltd
Unit 6, 34 Barberry Way
Bibra Lake
WA 6163

NATA Accredited
Accreditation Number 2377
Site Number 2370

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **David Reddie**

Report **879061-S**
Project name WCER
Received Date Apr 08, 2022

Client Sample ID			**V1**	**V2**	**V3**	**V4**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L22-Ap0022511**	**L22-Ap0022512**	**L22-Ap0022513**	**L22-Ap0022514**
Date Sampled			**Apr 08, 2022**	**Apr 08, 2022**	**Apr 08, 2022**	**Apr 08, 2022**
Test/Reference	LOR	Unit				
Volatile TRH (NEPM) Soil						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.3
Xylenes (Total)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	2.0
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.5
TRH C6-10	2	mg/kg	< 2	< 2	< 2	69
TRH C6-10 minus BTEX (F1)	2	mg/kg	< 2	< 2	< 2	67
Semi-volatiles TRH (NEPM) Soil						
TRH C>10-16	20	mg/kg	530	< 20	< 20	3500
TRH C>10-16 minus Naphthalene (F2)	20	mg/kg	530	< 20	< 20	3500
TRH C>16-34	50	mg/kg	750	< 50	< 50	3000
TRH C>34-40	50	mg/kg	< 50	< 50	< 50	< 50

Client Sample ID			**V5**	**V6**	**V7**	**V8**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L22-Ap0022515**	**L22-Ap0022516**	**L22-Ap0022517**	**L22-Ap0022518**
Date Sampled			**Apr 08, 2022**	**Apr 08, 2022**	**Apr 08, 2022**	**Apr 08, 2022**
Test/Reference	LOR	Unit				
Volatile TRH (NEPM) Soil						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes (Total)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-10	2	mg/kg	< 2	< 2	< 2	< 2
TRH C6-10 minus BTEX (F1)	2	mg/kg	< 2	< 2	< 2	< 2
Semi-volatiles TRH (NEPM) Soil						
TRH C>10-16	20	mg/kg	< 20	< 20	< 20	< 20
TRH C>10-16 minus Naphthalene (F2)	20	mg/kg	< 20	< 20	< 20	< 20
TRH C>16-34	50	mg/kg	< 50	< 50	< 50	< 50
TRH C>34-40	50	mg/kg	< 50	< 50	< 50	< 50

Client Sample ID			DUP1
Sample Matrix			Soil
Eurofins Sample No.			L22-Ap0022519
Date Sampled			Apr 08, 2022
Test/Reference	LOR	Unit	
Volatile TRH (NEPM) Soil			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
Xylenes (Total)	0.2	mg/kg	< 0.2
Naphthalene	0.5	mg/kg	< 0.5
TRH C6-10	2	mg/kg	< 2
TRH C6-10 minus BTEX (F1)	2	mg/kg	< 2
Semi-volatiles TRH (NEPM) Soil			
TRH C>10-16	20	mg/kg	31
TRH C>10-16 minus Naphthalene (F2)	20	mg/kg	31
TRH C>16-34	50	mg/kg	< 50
TRH C>34-40	50	mg/kg	< 50

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Volatile TRH (NEPM) Soil	Welshpool	Apr 11, 2022	7 Days
- Method: ARL192 - Total Recoverable Hydrocarbons (C6-C10) in Soil			
Semi-volatiles TRH (NEPM) Soil	Welshpool	Apr 11, 2022	14 Days
- Method: ARL193 - Total Recoverable Hydrocarbons (>C10-C40) in Soil			

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IANZ # 1290

Company Name: Hazrad Australia Pty Ltd
Address: Unit 6, 34 Barberry Way
Bibra Lake
WA 6163

Project Name: WCER

Order No.:
Report #: 879061
Phone: 497007081
Fax:

Received: Apr 8, 2022 5:00 PM
Due: Apr 14, 2022
Priority: 4 Day
Contact Name: David Reddie

Eurofins Analytical Services Manager : Andrew Harvey

Sample Detail						Moisture Set	TRH (NEPM) Soil
Perth Laboratory - NATA # 2377 Site # 2370						X	X
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217							
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	V1	Apr 08, 2022		Soil	L22-Ap0022511	X	X
2	V2	Apr 08, 2022		Soil	L22-Ap0022512	X	X
3	V3	Apr 08, 2022		Soil	L22-Ap0022513	X	X
4	V4	Apr 08, 2022		Soil	L22-Ap0022514	X	X
5	V5	Apr 08, 2022		Soil	L22-Ap0022515	X	X
6	V6	Apr 08, 2022		Soil	L22-Ap0022516	X	X

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Perth Laboratory - NATA # 2377 Site # 2370						X	X
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217							
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
External Laboratory							
7	V7	Apr 08, 2022		Soil	L22-Ap0022517	X	X
8	V8	Apr 08, 2022		Soil	L22-Ap0022518	X	X
9	DUP1	Apr 08, 2022		Soil	L22-Ap0022519	X	X
Test Counts						9	9

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Volatile TRH (NEPM) Soil							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Xylenes (Total)	mg/kg	< 0.2			0.2	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-10	mg/kg	< 2			2	Pass	
Method Blank							
Semi-volatiles TRH (NEPM) Soil							
TRH C>10-16	mg/kg	< 20			20	Pass	
TRH C>16-34	mg/kg	< 50			50	Pass	
TRH C>34-40	mg/kg	< 50			50	Pass	
LCS - % Recovery							
Semi-volatiles TRH (NEPM) Soil							
TRH C>10-16	%	129			70-140	Pass	
TRH C>16-34	%	131			70-140	Pass	
TRH C>34-40	%	133			70-140	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Volatile TRH (NEPM) Soil				Result 1	Result 2	RPD			
Benzene	L22-Ap0022514	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L22-Ap0022514	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	L22-Ap0022514	CP	mg/kg	0.3	0.3	15	30%	Pass	
Xylenes (Total)	L22-Ap0022514	CP	mg/kg	2.0	2.0	1.0	30%	Pass	
Naphthalene	L22-Ap0022514	CP	mg/kg	2.5	2.9	16	30%	Pass	
TRH C6-10	L22-Ap0022514	CP	mg/kg	69	70	2.0	30%	Pass	
TRH C6-10 minus BTEX (F1)	L22-Ap0022514	CP	mg/kg	67	68	2.0	30%	Pass	
Duplicate									
Semi-volatiles TRH (NEPM) Soil				Result 1	Result 2	RPD			
TRH C>10-16	L22-Ap0022518	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C>16-34	L22-Ap0022518	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C>34-40	L22-Ap0022518	CP	mg/kg	< 50	< 50	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

Andrew Harvey	Analytical Services Manager
Paul Nottle	Senior Analyst (WA)

Kim Rodgers
Business Unit Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

Hazrad Australia Pty Ltd
Unit 6, 34 Barberry Way
Bibra Lake
WA 6163

NATA Accredited
Accreditation Number 2377
Site Number 2370

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **David Reddie**

Report **881109-S**
Project name WCER
Received Date Apr 20, 2022

Client Sample ID			**V9**	**V10**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**L22-Ap0038811**	**L22-Ap0038812**
Date Sampled			**Apr 20, 2022**	**Apr 20, 2022**
Test/Reference	LOR	Unit		
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3
BTEX				
4-Bromofluorobenzene (surr.)	1	%	124	121
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH C6-C9	20	mg/kg	< 20	< 20
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
% Moisture	1	%	4.9	6.5

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
BTEX	Welshpool	Apr 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Welshpool	Apr 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Welshpool	Apr 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Welshpool	Apr 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
% Moisture	Welshpool	Apr 20, 2022	14 Days
- Method: ARL135 Moisture in Solids			

eurofins | ARL

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898
Perth
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Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing Australia Pty Ltd
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Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

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Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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NATA # 1261 Site # 20794

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4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954
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35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Hazrad Australia Pty Ltd
Address: Unit 6, 34 Barberry Way
Bibra Lake
WA 6163

Project Name: WCER

Order No.:
Report #: 881109
Phone: 497007081
Fax:

Received: Apr 20, 2022 10:15 AM
Due: Apr 21, 2022
Priority: 1 Day
Contact Name: David Reddie

Eurofins Analytical Services Manager : Andrew Harvey

Sample Detail						Moisture Set	Eurofins Suite B1
Perth Laboratory - NATA # 2377 Site # 2370						X	X
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217							
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	V9	Apr 20, 2022		Soil	L22-Ap0038811	X	X
2	V10	Apr 20, 2022		Soil	L22-Ap0038812	X	X
Test Counts						2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	93			70-130	Pass	
Toluene	%	88			70-130	Pass	
Ethylbenzene	%	96			70-130	Pass	
m&p-Xylenes	%	100			70-130	Pass	
o-Xylene	%	101			70-130	Pass	
Xylenes - Total*	%	101			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	114			70-130	Pass	
TRH C6-C10	%	92			70-130	Pass	
TRH C6-C9	%	108			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	%	109			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	104			70-130	Pass	
CRM - % Recovery							
BTEX							
Benzene	%	92			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	92			70-130	Pass	
m&p-Xylenes	%	96			70-130	Pass	
o-Xylene	%	91			70-130	Pass	
Xylenes - Total*	%	95			70-130	Pass	
CRM - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene			%	95			70-130	Pass	
TRH C6-C10			%	87			70-130	Pass	
TRH C6-C9			%	100			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
BTEX				Result 1					
Benzene	L22-Ap0035758	NCP	%	87			70-130	Pass	
Toluene	L22-Ap0035758	NCP	%	85			70-130	Pass	
Ethylbenzene	L22-Ap0035758	NCP	%	91			70-130	Pass	
m&p-Xylenes	L22-Ap0035758	NCP	%	98			70-130	Pass	
o-Xylene	L22-Ap0035758	NCP	%	96			70-130	Pass	
Xylenes - Total*	L22-Ap0035758	NCP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	L22-Ap0035758	NCP	%	117			70-130	Pass	
TRH C6-C10	L22-Ap0035758	NCP	%	100			70-130	Pass	
TRH C6-C9	L22-Ap0035758	NCP	%	116			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	L22-Ap0037090	NCP	%	109			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	L22-Ap0037090	NCP	%	103			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	L22-Ap0035756	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L22-Ap0035756	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	L22-Ap0035756	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	L22-Ap0035756	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	L22-Ap0035756	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	L22-Ap0035756	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	L22-Ap0035756	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	L22-Ap0035756	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C9	L22-Ap0035756	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	L22-Ap0037089	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	L22-Ap0037089	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	L22-Ap0037089	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	L22-Ap0037089	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	L22-Ap0037089	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	L22-Ap0037089	NCP	mg/kg	< 100	< 100	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.

Authorised by:

Andrew Harvey	Analytical Services Manager
Patrick Patfield	Senior Analyst (WA)
Sean Sangster	Senior Analyst (WA)

Kim Rodgers
Business Unit Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

CHAIN OF CUSTODY & ANALYSIS REQUEST

Lab ID Number: _____ *(please quote on all correspondence)*

Please remember to fill in your company details below or attach business card.

SGS Environmental Services
28 Reid Road,
Perth Airport
WA 6105
Tel: 08 9373 3500 Fax: 08 9373 3668

ATTN: Sample Receipt
Email: AU.SampleReceipt.Perth@sgs.com

Company Name:	Hazrad Australia	Project Name/No:	WCER
Address:	34 Cocos Drive, Bibra Lake, WA 6163	Purchase Order No:	
		Results Required Date:	**Standard TAT**
Contact Name:	David Reddie	Telephone:	Fax:
SGS Client Contact:	Dave Brennan	Email Results to:	david@hazrad.com.au
Laboratory Quotation No:		Email Invoice to:	office@hazrad.com.au

SGS ID	Client Sample ID	Sampling Date/Time (field record sheet number)	Tick as Appropriate: Solid Sample	Liquid Sample	Gas/Air Sample	PRESERVATIVE	NO. OF ITEMS	ANALYSIS REQUESTED. SPECIFY & TICK AS APPROPRIATE: TRH (NEPM suite)	BTEXn	Notes/Guidelines/LOR/ Special instructions
	TRIP1	8/4/22	✓					✓	✓	

SGS Perth Environmental
PE159851 COC
Received: 08 – Apr – 2022

Relinquished By: ASHLEY SHEARDOWN	Date/Time: 8/4/22	Received By: #5	Date/Time: 8/4/22 14:30
Relinquished By:	Date/Time:	Received By:	Date/Time:
Samples Intact: **Yes**	Temperature: **Cold**	Sample Security Sealed: **No**	
Sampling by SGS: **No**	Sampler ID:		Quarantine: **No**
Comments / Subcontracting details: **soil validation sample after ceanup of oil spill**			Hazards: **N/A**

SGS	REGISTRATION DETAILS Bottle Map	Doc. No.	PF-AU-ENVLTS-PAP-QU101	Page 1 of 1
		Rev. No.	8.0 DRAFT	
		Date	08/03/2022	

Sample Numbers:	1L Plastic Green	500mL Plastic Green	250mL Plastic Green	125mL Plastic Green	125mL UF/F Plastic Red	1L Amber Green	500mL Amber Green	100mL Amber Green	40mL Glass Vial VOC	40mL Glass Vial HAA	250mL Plastic Purple	500mL Plastic Blue	500mL Amber Orange	250mL Plastic Orange	125mL Plastic Brown	1L Plastic Yellow	250mL Glass Jar	125mL Glass Jar	Ziplock Bag/ Other
1																	1		

Job Number: PE 1598511

# of Eskies: 1

Temp (°C):

☐ IB:

☐ ICE:

☑ None: 20.1

Tray Numbers: MH

Registration comments by local team (For GBS):

Pre-registration/ unpacking comments for local team:

☐ Green dot on metal bottle

Is this a Boomerang Esky?	Y or N	Boomerang Due Date:		Pre-registered By:	Unpacked By:

SGS AUSTRALIA PROPOSAL FOR SERVICES

QUOTE NUMBER: **Hazra - EHS - JAN 21 - 187807**

Number of Samples: 1x Solid

Quote Valid Until: 28/02/2021

Organisation: Hazrad Australia

Contact Name: Rob Leishman

Email: rob@hazrad.com.au

Phone: 0457 865 888

Project Reference: Waste Aqueous SAP

PRICING

PARAMETER	REFERENCE	LOR (mg/kg)	UNIT PRICE	UNITS	COST
pH	APHA 4500 H	0.1 pH units	$5.65	1	$5.65
17 Total Metals			**$45.19**	**1**	**$45.19**
As, Be, Cd, Pb, Hg, Mo, Ni, Se, Ag, Al, Ba, B, Co, Cu, Mn, V, Zn	USEPA 200.8/3050/6010B	0.1-3			
Hexavalent Chromium (alkaline digest)	USEPA 3060A	1	$23.72	1	$23.72
TRH -Total Recoverable Hydrocarbons C6-C40	USEPA 8260/8270 - SGS Melbourne	20-100	$58.74	1	$58.74
Perfluorinated Surfactants PFAS	MA-1523	0.01	$159.19	1	$159.19
Administration Fee (Per Batch)			$30.00	1	$30.00
Disposal Fees (Per Sample)			$1.00	1	$1.00
TOTAL (Excluding GST)					$323.49

Bottles Required per sample:

Bottle	Size	Material	Preservative	Label	Quantity
Soil Jar 250 – SGS Melbourne	250ml	Glass PTFE lid	Exclude Air	SGS	1

TURNAROUND TIMES	TERMED	SURCHARGE
Same working day	Same Day	100%
By close of business the next working day after receipt	1 day	50%
By close of business 2 working days after receipt	2 day	25%
By close of business 3 working days after receipt	3 day	12.50%

ADDITIONAL SERVICES THAT MAY APPLY TO YOUR SAMPLES	
Minimum Fee (Per Invoice)	$160.00
Admin Fee (Per Batch)	$30.00
Disposal Fee (Per Sample)	$1.00

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	SGS Environmental Perth
Client	SGS I&E PERTH
Address	28 Reid Road Perth Airport WA 6105
Telephone	+61 (0)8 9373 3500
Facsimile	+61 (0)8 9373 3556
Email	au.environmental.subcon@sgs.com
Project	**WCER**
Order Number	**PE159851**
Samples	1

LABORATORY DETAILS

Manager	Adam Atkinson
Laboratory	SGS Melbourne EH&S
Address	10/585 Blackburn Road Notting Hill Victoria 3168
Telephone	+61395743200
Facsimile	+61395743399
Email	Au.SampleReceipt.Melbourne@sgs.com
SGS Reference	**ME326303 R0**
Date Received	12 Apr 2022
Date Reported	14 Apr 2022

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(14420).

SIGNATORIES

Andrew WRIGHT
Senior Chemist

Susan WAN
Senior Chemist

Parameter	Units	LOR	Sample Number ME326303.001 Sample Matrix Soil Sample Date 08 Apr 2022 Sample Name PE159851.001
USEPA 8260B Volatile Organic Compounds in Solids/Soils	**Method: USEPA 8260 B**		**Tested: 12/4/2022**
m&p-Xylenes	mg/kg	0.1	<0.1
Total Xylenes	mg/kg	0.5	<0.5
Total BTEX	mg/kg	0.5	<0.5
Monocyclic Aromatic Hydrocarbons			
Benzene	mg/kg	0.1	<0.1
Toluene	mg/kg	0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1
o-Xylenes	mg/kg	0.1	<0.1
Polycyclic Aromatic Hydrocarbons			
Naphthalene (VOC)	mg/kg	0.1	<0.1
Surrogates			
Toluene-d8 (surrogate)	%	-	**73**
TRH in soil MA-30.SL.01	**Method: MA30**		**Tested: 13/4/2022**
TRH C6-C9 (P&T)	mg/kg	10	<10
TRH C10-C14	mg/kg	10	**13**
TRH >C10-C16	mg/kg	10	**18**
TRH>C10-C16 less naphthalene (F2)	mg/kg	10	**18**
TRH >C16-C34 (F3)	mg/kg	20	<20
TRH C15-C28	mg/kg	20	**21**
TRH C29-C36	mg/kg	20	<20
C6-C10 (P&T) less BTEX (F1)	mg/kg	10	<10
Total TRH C10-C36	mg/kg	20	**34**
TRH >C34-C40 (F4)	mg/kg	20	<20
TRH C6-C10 (P&T)	mg/kg	10	<10
Total TRH C6-C36	mg/kg	20	**34**
Total TRH C6-C40 (F)	mg/kg	20	<20
TRH >C10-C40 (F)	mg/kg	20	<20

Parameter	Units	LOR	Sample Number ME326303.001 Sample Matrix Soil Sample Date 08 Apr 2022 Sample Name PE159851.001
Volatile Petroleum Hydrocarbons in soil Method: MA30-VPH Tested: 12/4/2022			
TRH C6-C9 (P&T)	mg/kg	10	<10
TRH C6-C10 (P&T)	mg/kg	10	<10
TRH C6-C10 (P&T) less BTEX (F1)	mg/kg	10	<10
Moisture Content Method: AN002 Tested: 12/4/2022			
% Moisture	%w/w	1	**6.8**

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage.* Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Moisture Content Method: ME-(AU)-[ENV]AN002

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture	LB050022	%w/w	1	7%

TRH in soil MA-30.SL.01 Method: MA30

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH C6-C9 (P&T)	LB050029	mg/kg	10	<10	0%	NA	NA
TRH C10-C14	LB050029	mg/kg	10	<10	5%	NA	NA
TRH >C10-C16	LB050029	mg/kg	10	<10	13%	NA	NA
TRH>C10-C16 less naphthalene (F2)	LB050029	mg/kg	10	<10	13%	NA	NA
TRH >C16-C34 (F3)	LB050029	mg/kg	20	<20	0%	NA	NA
TRH C15-C28	LB050029	mg/kg	20	<20	10%	NA	NA
TRH C29-C36	LB050029	mg/kg	20	<20	0%	NA	NA
C6-C10 (P&T) less BTEX (F1)	LB050029	mg/kg	10	<10	0%	NA	NA
Total TRH C10-C36	LB050029	mg/kg	20	<20	8%	90%	87%
TRH >C34-C40 (F4)	LB050029	mg/kg	20	<20	0%	NA	NA
TRH C6-C10 (P&T)	LB050029	mg/kg	10	<10	0%	NA	NA
Total TRH C6-C36	LB050029	mg/kg	20	<20	8%	NA	NA
Total TRH C6-C40 (F)	LB050029	mg/kg	20	<20	2%	NA	NA
TRH >C10-C40 (F)	LB050029	mg/kg	20	<20	2%	NA	NA

USEPA 8260B Volatile Organic Compounds in Solids/Soils Method: USEPA 8260 B

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
m&p-Xylenes	LB050021	mg/kg	0.1	<0.1	0%	NA	NA	NA
Total Xylenes	LB050021	mg/kg	0.5	<0.5	0%	NA	NA	NA
Total BTEX	LB050021	mg/kg	0.5	<0.5	0%	NA	NA	NA

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
Benzene	LB050021	mg/kg	0.1	<0.1	0%	81%	93%	8%
Toluene	LB050021	mg/kg	0.1	<0.1	0%	96%	109%	6%
Ethylbenzene	LB050021	mg/kg	0.1	<0.1	0%	99%	114%	7%
o-Xylenes	LB050021	mg/kg	0.1	<0.1	0%	NA	NA	NA

Polycyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
Naphthalene (VOC)	LB050021	mg/kg	0.1	<0.1	0%	NA	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
Toluene-d8 (surrogate)	LB050021	%	-	85%	3%	72%	79%	5%

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage.* Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Volatile Petroleum Hydrocarbons in soil **Method: MA30-VPH**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery	MSD %RPD
TRH C6-C9 (P&T)	LB050021	mg/kg	10	<10	0%	106%	110%	NA
TRH C6-C10 (P&T)	LB050021	mg/kg	10	<10	0%	93%	107%	NA
TRH C6-C10 (P&T) less BTEX (F1)	LB050021	mg/kg	10	<10	0%	NA	NA	NA

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
MA-30	This method is used for the analysis of Total Recoverable Hydrocarbons (TRH). TRH is a generic term for all extractable organic compounds and includes all hydrocarbons and hydrocarbon derivatives that have between six and forty carbons per molecule i.e. compounds in the range >C5 to C40. The reporting of Total Recoverable Hydrocarbons is done by grouping compounds of similar nature and behaviour into “fractions”. Samples are extracted into a solvent appropriate to the matrix. The extract is then analysed using a gas chromatograph with either a flame ionisation detector (GC-FID) or a mass spectrometer (GC-MS)
MA30 -VPH	This method is used to quantify Volatile Petroleum Hydrocarbon (VPH) fractions using Gas Chromatography Mass Spectrometry coupled with a purge and trap sample concentrator. This method is based on USEPA 8260B (Volatile Organic Compounds by Gas Chromatography Mass Spectrometry GC/MS), using USEPA 5035 (Closed system purge and trap and extraction for volatile organics in soil and solid waste samples.).
MA30-VPH	A sample is weighed out, and has surrogates added and is extracted in methanol. This methanol extract is then diluted in water. A stream of helium is passed through a portion of the extracted sample; the volatile components are ‘purged’ from the sample and are collected and concentrated on an adsorbent trap. The trap is rapidly heated and back-flushed with helium to ‘desorb’ the analytes onto the Gas Chromatographic column. The GC column separates the analytes and they are passed into the Mass Selective detector, which fragments the molecules and produces “mass spectra” of each compound.
USEPA 8260B	This method is used to quantify Volatile Organic Compounds using Gas Chromatography Mass Spectrometry coupled with a purge and trap sample concentrator. This method is based on USEPA 8260B (Volatile Organic Compounds by Gas Chromatography Mass Spectrometry GC/MS), using USEPA 5035 (Closed system purge and trap and extraction for volatile organics in soil and solid waste samples.).
USEPA 8260B	A sample is weighed out, and has surrogates added and is extracted in methanol. This methanol extract is then diluted in water. A stream of helium is passed through a portion of the extracted sample; the volatile components are ‘purged’ from the sample and are collected and concentrated on an adsorbent trap. The trap is rapidly heated and back-flushed with helium to ‘desorb’ the analytes onto the Gas Chromatographic column. The GC column separates the analytes and they are passed into the Mass Selective detector, which fragments the molecules and produces “mass spectra” of each compound.

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	NATA accreditation does not cover the performance of this service.	QFH	QC result is above the upper tolerance
		QFL	QC result is below the lower tolerance
**	Indicative data, theoretical holding time exceeded.	-	The sample was not analysed for this analyte
***	Indicates that both * and ** apply.	NVL	Not Validated

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calcuated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

STATEMENT OF QA/QC PERFORMANCE

ME326303 R0

CLIENT DETAILS		LABORATORY DETAILS	
Contact	SGS Environmental Perth	Manager	Adam Atkinson
Client	SGS I&E PERTH	Laboratory	SGS Melbourne EH&S
Address	28 Reid Road Perth Airport WA 6105	Address	10/585 Blackburn Road Notting Hill Victoria 3168
Telephone	+61 (0)8 9373 3500	Telephone	+61395743200
Facsimile	+61 (0)8 9373 3556	Facsimile	+61395743399
Email	au.environmental.subcon@sgs.com	Email	Au.SampleReceipt.Melbourne@sgs.com
Project	**WCER**	SGS Reference	**ME326303 R0**
Order Number	**PE159851**	Date Received	12 Apr 2022
Samples	1	Date Reported	14 Apr 2022

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Melbourne EH&S laboratory).

SAMPLE SUMMARY

HOLDING TIME SUMMARY

ME326303 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Moisture Content — Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
PE159851.001	ME326303.001	LB050022	08 Apr 2022	12 Apr 2022	22 Apr 2022	12 Apr 2022	17 Apr 2022	14 Apr 2022

TRH in soil MA-30.SL.01 — Method: MA30

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
PE159851.001	ME326303.001	LB050029	08 Apr 2022	12 Apr 2022	22 Apr 2022	13 Apr 2022	23 May 2022	14 Apr 2022

USEPA 8260B Volatile Organic Compounds in Solids/Soils — Method: USEPA 8260 B

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
PE159851.001	ME326303.001	LB050021	08 Apr 2022	12 Apr 2022	22 Apr 2022	12 Apr 2022	22 Apr 2022	14 Apr 2022

Volatile Petroleum Hydrocarbons in soil — Method: MA30-VPH

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
PE159851.001	ME326303.001	LB050021	08 Apr 2022	12 Apr 2022	22 Apr 2022	12 Apr 2022	14 Apr 2022	14 Apr 2022

SURROGATES

ME326303 R0

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

USEPA 8260B Volatile Organic Compounds in Solids/Soils — **Method: USEPA 8260 B**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Toluene-d8 (surrogate)	PE159851.001	ME326303.001	%	60 - 130%	73

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH in soil MA-30.SL.01 — **Method: MA30**

Sample Number	Parameter	Units	LOR	Result
LB050029.001	TRH C6-C9 (P&T)	mg/kg	10	<10
	TRH C10-C14	mg/kg	10	<10
	TRH >C10-C16	mg/kg	10	<10
	TRH>C10-C16 less naphthalene (F2)	mg/kg	10	<10
	TRH >C16-C34 (F3)	mg/kg	20	<20
	TRH C15-C28	mg/kg	20	<20
	TRH C29-C36	mg/kg	20	<20
	C6-C10 (P&T) less BTEX (F1)	mg/kg	10	<10
	Total TRH C10-C36	mg/kg	20	<20
	TRH >C34-C40 (F4)	mg/kg	20	<20
	TRH C6-C10 (P&T)	mg/kg	10	<10
	Total TRH C6-C36	mg/kg	20	<20
	Total TRH C6-C40 (F)	mg/kg	20	<20
	TRH >C10-C40 (F)	mg/kg	20	<20

USEPA 8260B Volatile Organic Compounds in Solids/Soils — **Method: USEPA 8260 B**

Sample Number		Parameter	Units	LOR	Result
LB050021.001		m&p-Xylenes	mg/kg	0.1	<0.1
	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1
	Hydrocarbons	Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		o-Xylenes	mg/kg	0.1	<0.1
	Polycyclic Aromatic	Naphthalene (VOC)	mg/kg	0.1	<0.1
	Surrogates	Toluene-d8 (surrogate)	%	-	85

Volatile Petroleum Hydrocarbons in soil — **Method: MA30-VPH**

Sample Number	Parameter	Units	LOR	Result
LB050021.001	TRH C6-C9 (P&T)	mg/kg	10	<10
	TRH C6-C10 (P&T)	mg/kg	10	<10
	TRH C6-C10 (P&T) less BTEX (F1)	mg/kg	10	<10

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
ME326303.001	LB050022.002	% Moisture	%w/w	1	6.8	6.3	45	7

TRH in soil MA-30.SL.01

Method: MA30

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
ME326303.001	LB050029.004	TRH C6-C9 (P&T)	mg/kg	10	<10	<10	200	0
		TRH C10-C14	mg/kg	10	13	14	106	5
		TRH >C10-C16	mg/kg	10	18	20	82	13
		TRH>C10-C16 less naphthalene (F2)	mg/kg	10	18	20	82	13
		TRH >C16-C34 (F3)	mg/kg	20	<20	<20	135	0
		TRH C15-C28	mg/kg	20	21	24	119	10
		TRH C29-C36	mg/kg	20	<20	<20	200	0
		C6-C10 (P&T) less BTEX (F1)	mg/kg	10	<10	<10	200	0
		Total TRH C10-C36	mg/kg	20	34	37	86	8
		TRH >C34-C40 (F4)	mg/kg	20	<20	<20	200	0
		TRH C6-C10 (P&T)	mg/kg	10	<10	<10	200	0
		Total TRH C6-C36	mg/kg	20	34	37	86	8
		Total TRH C6-C40 (F)	mg/kg	20	<20	20	135	2
		TRH >C10-C40 (F)	mg/kg	20	<20	20	135	2

USEPA 8260B Volatile Organic Compounds in Solids/Soils

Method: USEPA 8260 B

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
ME326297.001	LB050021.004		m&p-Xylenes	mg/kg	0.1	<0.1	<0.1	200	0
			Total Xylenes	mg/kg	0.5	<0.5	<0.5	200	0
			Total BTEX	mg/kg	0.5	<0.5	<0.5	200	0
		Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			o-Xylenes	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Toluene-d8 (surrogate)	mg/kg	-	16	16	30	3

Volatile Petroleum Hydrocarbons in soil

Method: MA30-VPH

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
ME326297.001	LB050021.004	TRH C6-C9 (P&T)	mg/kg	10	<10	<10	200	0
		TRH C6-C10 (P&T)	mg/kg	10	<10	<10	200	0
		TRH C6-C10 (P&T) less BTEX (F1)	mg/kg	10	<10	<10	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH in soil MA-30.SL.01 — **Method: MA30**

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB050029.002	Total TRH C10-C36	mg/kg	20	450	500	60 - 140	90

USEPA 8260B Volatile Organic Compounds in Solids/Soils — **Method: USEPA 8260 B**

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB050021.002	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.1	5	60 - 140	81
		Toluene	mg/kg	0.1	4.8	5	60 - 140	96
		Ethylbenzene	mg/kg	0.1	5.0	5	60 - 140	99

Volatile Petroleum Hydrocarbons in soil — **Method: MA30-VPH**

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB050021.002	TRH C6-C9 (P&T)	mg/kg	10	32	30	60 - 140	106
	TRH C6-C10 (P&T)	mg/kg	10	33	35	60 - 140	93

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

TRH in soil MA-30.SL.01

Method: MA30

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
ME326303.001	LB050029.005	TRH C6-C9 (P&T)	mg/kg	10	<10	<10	-	-
		TRH C10-C14	mg/kg	10	160	13	-	-
		TRH >C10-C16	mg/kg	10	260	18	-	-
		TRH>C10-C16 less naphthalene (F2)	mg/kg	10	260	18	-	-
		TRH >C16-C34 (F3)	mg/kg	20	210	<20	-	-
		TRH C15-C28	mg/kg	20	310	21	-	-
		TRH C29-C36	mg/kg	20	<20	<20	-	-
		C6-C10 (P&T) less BTEX (F1)	mg/kg	10	<10	<10	-	-
		Total TRH C10-C36	mg/kg	20	470	34	500	87
		TRH >C34-C40 (F4)	mg/kg	20	<20	<20	-	-
		TRH C6-C10 (P&T)	mg/kg	10	<10	<10	-	-
		Total TRH C6-C36	mg/kg	20	470	34	-	-
		Total TRH C6-C40 (F)	mg/kg	20	470	<20	-	-
		TRH >C10-C40 (F)	mg/kg	20	470	<20	-	-

USEPA 8260B Volatile Organic Compounds in Solids/Soils

Method: USEPA 8260 B

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
ME326297.001	LB050021.005		m&p-Xylenes	mg/kg	0.1	<0.1	<0.1	-	-
			Total Xylenes	mg/kg	0.5	<0.5	<0.5	-	-
			Total BTEX	mg/kg	0.5	16	<0.5	-	-
		Monocyclic Aromatic	Benzene	mg/kg	0.1	4.7	<0.1	5	93
			Toluene	mg/kg	0.1	5.5	<0.1	5	109
			Ethylbenzene	mg/kg	0.1	5.7	<0.1	5	114
			o-Xylenes	mg/kg	0.1	<0.1	<0.1	-	-
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	Toluene-d8 (surrogate)	mg/kg	-	16	16	-	79

Volatile Petroleum Hydrocarbons in soil

Method: MA30-VPH

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
ME326297.001	LB050021.005	TRH C6-C9 (P&T)	mg/kg	10	37	<10	30	110
		TRH C6-C10 (P&T)	mg/kg	10	42	<10	35	107
		TRH C6-C10 (P&T) less BTEX (F1)	mg/kg	10	27	<10	-	-

MATRIX SPIKE DUPLICATES

ME326303 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

USEPA 8260B Volatile Organic Compounds in Solids/Soils

Method: USEPA 8260 B

QC Sample	Sample Number		Parameter	Units	LOR	Duplicate
ME326297.001	LB050021.006		m&p-Xylenes	mg/kg	0.1	<0.1
			Total Xylenes	mg/kg	0.5	<0.5
			Total BTEX	mg/kg	0.5	15
		Monocyclic Aromatic	Benzene	mg/kg	0.1	4.3
			Toluene	mg/kg	0.1	5.1
			Ethylbenzene	mg/kg	0.1	5.3
			o-Xylenes	mg/kg	0.1	<0.1
		Polycyclic	Naphthalene (VOC)	mg/kg	0.1	<0.1
		Surrogates	Toluene-d8 (surrogate)	mg/kg	-	15

Volatile Petroleum Hydrocarbons in soil

Method: MA30-VPH

QC Sample	Sample Number	Parameter	Units	LOR	Duplicate
ME326297.001	LB050021.006	TRH C6-C9 (P&T)	mg/kg	10	38
		TRH C6-C10 (P&T)	mg/kg	10	43
		TRH C6-C10 (P&T) less BTEX (F1)	mg/kg	10	28

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
***	Indicates that both * and ** apply.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.
①	Majority of surrogate recoveries are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
⑪	Majority of spike recoveries are within acceptance criteria.
†	Refer to relevant report comments for further information.

APPENDIX C – Landfill Receipts

Eclipse Soils, Postans

ECLIPSE SOILS

RESOURCE RECOVERY CENTRE
ABERCROMBIE RD, KWINANA

PO Box 474, SUBIACO WA 6904
Site Telephone (08) 9437 2766
Site Mobile 0413 837 146
Office Telephone (08) 9380 3333
ABN 32 131 802 661

A 310516

TAX INVOICE

☑ Yes
☐ No

Contractors Name Hazvad Australia. Date: 06/04/22

Quantity M³	Grade	Job No.	Source	Amount/Order No.	Registration No.	Signature
9.	R20		East	Thomas	1DP2068	T.S
9			Rockingham	Thomas	1DP2068	T.S.
			$250 consult fee.			
Total Price Including GST			$			

GRADE TYPES

1. CLEAN – NO SORTING • 2. SPECIAL MATERIALS • 3. CLEAN SAND – VIRGIN EXCAVATED NATURAL MATERIAL • 4. MINOR SORTING REQUIRED • 5. LOAD REQUIRES SORTING
GW1. CLEAN • GW2. GRASS WASTE • GW3. STUMPS AND LOGS
• GW4. MIXED GREENWASTE AND TOPSOIL • GW5. PALM MATERIAL

NOTICE TO ALL CARRIERS

1. This site only accepts inert materials, green waste and material approved for remediation.
2. All truck loads must be secured to avoid dust nuisance and to ensure safe transport.
3. Any carrier who breaches these conditions or who behaves in any manner deemed irresponsible may be banned from future use of this site.
4. Any load containing undisclosed contaminants will be turned away.

ECLIPSE SOILS

RESOURCE RECOVERY CENTRE
ABERCROMBIE RD, KWINANA

PO Box 474, SUBIACO WA 6904
Site Telephone (08) 9437 2766
Site Mobile 0413 837 146
Office Telephone (08) 9380 3333
ABN 32 131 802 661

A 310585

TAX INVOICE

☑ Yes
☐ No

Contractors Name Hazrad Australia Date: 19/04/22.

Quantity M³	Grade	Job No.	Source	Amount/Order No.	Registration No.	Signature
9	RD	3300-1	WaterCorp	Thomas	1DXN72(	TS
			Chesterfield			
			Road			
Total Price Including GST			$			

GRADE TYPES

1. CLEAN – NO SORTING • 2. SPECIAL MATERIALS • 3. CLEAN SAND – VIRGIN EXCAVATED NATURAL MATERIAL • 4. MINOR SORTING REQUIRED • 5. LOAD REQUIRES SORTING
GW1. CLEAN • GW2. GRASS WASTE • GW3. STUMPS AND LOGS
• GW4. MIXED GREENWASTE AND TOPSOIL • GW5. PALM MATERIAL

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ECLIPSE SOILS

RESOURCE RECOVERY CENTRE
ABERCROMBIE RD, KWINANA

PO Box 474, SUBIACO WA 6904
Site Telephone (08) 9437 2766
Site Mobile 0413 837 146
Office Telephone (08) 9380 3333
ABN 32 131 802 661

A 310688

TAX INVOICE

☑ Yes
☐ No

Contractors Name Hazrad Australia Date: 26/04/22

Quantity M³	Grade	Job No.	Source	Amount/Order No.	Registration No.	Signature
5	R2D	3500-1	Water Corp	Thomas	10XN721	TS
9			Chesterfield	Thomas	10XN721	TS.
			Rd,			
			East			
			Rockingham			
Total Price Including GST			$			

GRADE TYPES

1. CLEAN – NO SORTING • 2. SPECIAL MATERIALS • 3. CLEAN SAND – VIRGIN EXCAVATED NATURAL MATERIAL • 4. MINOR SORTING REQUIRED • 5. LOAD REQUIRES SORTING
GW1. CLEAN • GW2. GRASS WASTE • GW3. STUMPS AND LOGS
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APPENDIX 10

Fauna Trapping and Relocation Report

2022-009-003-gt

12 May 2022

Simon Thomson
Development Manager
DevelopmentWA
40 Esplanade
Perth, WA 6000

Re: Fauna relocation program for four sites in East Rockingham industrial estate

Dear Simon

Terrestrial Ecosystems is pleased to provide a report on the fauna relocation for the following four sites in east Rockingham:

- 26 Office Road, East Rockingham;
- Lot 3 Ward Rd and Lots 8-10 Ward Road, East Rockingham;
- Kwinana Beach Road around the fuel storage depot, East Rockingham; and
- Vacant land on the corner of Office Rd and Mandurah Rd, East Rockingham.

Licences

All trapping and fauna relocations were completed under a Regulation 28 Licence (#FR28000092) issued by the Department of Biodiversity, Conservation and Attractions.

Quenda trapping program

Terrestrial Ecosystems undertook two four-night and five day (i.e. 16/3 to 20/3/2022 and 28/3 to 1/4/2022) trapping programs targeting Quenda.

Preclearing active foraging for reptiles and small mammals and tree inspections

Active foraging for reptiles and small mammals was undertaken concurrently with the trapping program and during the vegetation mulching process.

Bees

No bee hives were encountered that were like to pose a risk to staff or contractors during the vegetation clearing program.

Vertebrate fauna relocation during the vegetation clearing

Terrestrial Ecosystems provided a suitably qualified zoologist to be present on 23, 24 and 30 March, 1, 3, 4 6, 7, 8, 11, 12 and 14 April 2022 when the vegetation was being cleared to catch and relocate all live vertebrate fauna.

Fauna removed from the project area

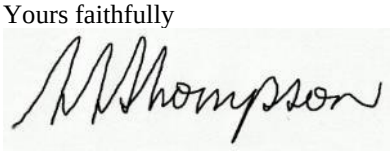
The fauna management program was undertaken by Dr Scott Thompson, John Radford, Georgia Ford and Michael Walsh.

One Australian Raven (*Covus coronoides*), three cats (*Felis catus*), five Quenda (*Isoodon fusciventer*), seven House Mice (*Mus musculus*), five Black Rats (*Rattus rattus*) and eight Bobtails (*Tiliqua rugosa*) were removed from the project areas. The cats were taken to the City of Rockingham pound, the Quenda and Bobtails were relocated, the House Mouse and Black Rats were euthanased and the Australian Raven was released.

Below are some images of the vegetation clearing and one of the cats given to the City of Rockingham pound.

Please do not hesitate to contact the undersigned on 0407 385 239 or Dr Graham Thompson (0438 491 227) should you have any queries.

Yours faithfully



Dr Scott Thompson
Principal Zoologist and Partner

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Plate 1. Cat relocated

Plate 2. Vegetation clearing

Plate 3. Vegetation clearing