



Application for Works Approval Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Works Approval Number	W6389/2020/1
Works Approval Holder	Polaris Metals Pty Ltd
ACN	085 223 570
File Number	DER2020/000173~1
Premises	Parker Range Iron Ore Project Parker Range Road M77/741-1, M77/742 and M77/764 MARVEL LOCH As defined by the Premises map attached to the Revised Works Approval
Date of Report	31 October 2022
Decision	Revised works approval granted

A/MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

Works Approval W6389/2020/1 is held by Polaris Metals Pty Ltd (Works Approval holder) for the Parker Range Iron Ore Project (the Premises), located at Parker Range Road, Marvel Loch, Western Australia.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the construction and operation of the Premises. As a result of this assessment, Revised Works Approval W6389/2020/1 has been granted.

The Revised Works Approval issued as a result of this amendment consolidates and supersedes the existing Works Approval previously granted in relation to the Premises.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Amendment summary

On 17 August 2022 the Works Approval Holder submitted an application to the department to amend Works Approval W6389/2020/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The amendment being sought is to increase the throughput capacity of Category 12 (operation of a mobile screening plant) within the premises boundary.

The applicant proposed that the mobile screening plant throughout capacity will be increased from 70,000 tonnes to 500,000 tonnes of waste rock per year, for use as construction material for haul and internal roads necessary for mining operations. The mobile screening plant will continue to be used on an ad-hoc basis for construction projects as they arise throughout the project's life of mine.

The Category 12 screening plant has yet to be constructed under this works approval and no changes to construction requirements are required to facilitate this increase in approved throughput.

W6389/2020/1 also currently grants approval to construct a modular crushing and screening plant to process ore, a dewatering pipeline, evaporation dam and a landfill to support mining operations at the Parker Range Iron Ore Project (L8596/2011/1). No changes to these aspects of the works approval have been proposed as part of this amendment application.

Table 1 below outlines the proposed changes to the existing Works Approval.

Table 1: Proposed changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
Category 12: Screening of Material.	70,000 tonnes/ annual period	500,000 tonnes per year.	Increase throughput capacity of mobile crushing and screening plant from 70,000 tonnes per year to 500,000 tonnes per year

Category 5: Processing or beneficiation of metallic or non-metallic ore	5,000,000 tonnes/ annual period	No change proposed	N/A
Category 6: Mine dewatering	1,000,000 tonnes/ annual period	No change proposed	N/A
Category 89: Putrescible landfill site	1,250 tonnes/ annual period	No change proposed	N/A

2.3 Approvals under Part IV of the EP Act and EPBC Act

Two Ministerial Statements (MS) under Part IV of the EP Act have been issued in relation to the Premises:

- MS 892 specifies requirements relating to the management of impacts on conservation significant flora, including monitoring health and abundance of declared rare flora *Isopogon robustus* and Priority 1 Flora *Lepidosperma sp. Mt Caudan* and management of conservation significant fauna, including Malleefowl, Western Rosella and White-Browed Babbler. Monitoring of ambient PM₁₀ concentrations at the sensitive receptor (located at 698176E and 6533022N on Liddell Road) and management of dust complaints is also required under MS 892.
- MS 1060 approved on 13 July 2017 specified a time limit for proposal implementation requiring the proponent to not commence implementation of the proposal after 12 April 2022.

An approval under the *Environmental Protection Biodiversity and Conservation Act 1999* (EPBC) (EPBC 2010/5435) was also issued for the Premises. The EPBC approval contains requirements in relation to undertaking baseline flora surveys to investigate local population(s) of *Isopogon robustus* (declared rare flora) and submission of a monitoring plan. A Malleefowl Management Plan is also required under the EPBC approval.

This risk assessment has not reassessed matters which have been previously considered under the EP Act Part IV and EPBC approval processes.

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this Amendment Report are detailed in Table 2 below. Table 2 also details the proposed control measures the Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Works Approval Holder controls

Emission	Sources	Potential pathways	Proposed controls
Operation (including time limited operations)			
Dust	Crushing and screening of material, vehicle movements, lift-off from stockpiles and/or stored product.	Air/windborne pathway	<ul style="list-style-type: none"> • The feed stockpiles will be sprayed with water prior to screening with a target moisture content of between 2-5%, resulting in negligible dust emissions. • Water trucks will be utilised to spray work areas, roads and stockpiles during times when the screen plant is operational. • Daily inspection of plant area will include observation of dust assessment and walking of plant site perimeter. • Monitoring of operational and weather conditions to support dust management. • Incident report system
Noise	Crushing and screening of material	Air/windborne pathway	None proposed. Applicant has committed that operations will comply with the <i>Environmental Protection (Noise) Regulations 1997</i> .
Sediment laden stormwater	Runoff from stockpiles	Overland flow	Temporary bunds will be constructed around the screening plant and product stockpile areas to prevent sediment laden stormwater runoff.
Hydrocarbon and chemical spills / leaks	Runoff from hydrocarbon and chemical storage areas Spills and leaks	Infiltration and overland flow	<ul style="list-style-type: none"> • Spill kits will be placed near the screening plant to allow timely clean-up of any hydrocarbon spills. • Screening plant infrastructure will undergo regular maintenance to ensure the risk of equipment failure is minimised. • Spillages will be cleaned up and disposed in accordance with environmental procedures. • All hydrocarbons and dangerous goods on site will be stored and handled according to the applicable sections of the <i>Dangerous Goods Safety Act 2004</i>, <i>Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007</i> and <i>Dangerous Goods Safety (Explosives) Regulations 2007</i>. • Chemical storage areas will be bunded with a containment capacity equivalent to 110% of the capacity of any tank or 25% of the total capacity of an

Emission	Sources	Potential pathways	Proposed controls
			interlinked system. <ul style="list-style-type: none"> Regular inspection of bunded areas to ensure capacity is maintained.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Works Approval Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)). The closest human receptors to the site are rural residential premises located approximately 12.7km north of the premises.

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Priority ecological community – Parker Range Ecological Community (P3)	Premises located within the ecological community buffer.
Priority ecological community - Eucalypt woodlands of the Western Australian Wheatbelt (P3)	Located approximately 4.3 km south-south-west of the proposed activity.
Threatened/Priority fauna species: <ul style="list-style-type: none"> Malleefowl– covered as part of MS892 and EPBC 2010/5435. Western Rosella (<i>Platycercus icterotis xanthogenys</i>) – Priority 4. White-browed Babbler (<i>Pomatostomus superciliosus</i>) 	Malleefowl and Western Rosella (<i>Platycercus icterotis xanthogenys</i>) recorded in the Parker Range Iron Ore Project area.
Threatened flora species: <ul style="list-style-type: none"> Threatened flora species <i>Isopogon robustus</i> recorded southeast and southwest of the Parker Range Iron Ore Project area. MS 892 specifies requirements relating to the management of impacts on conservation significant flora, including monitoring health and abundance of declared rare flora <i>Isopogon robustus</i> and Priority 1 Flora <i>Lepidosperma sp. Mt Caudan</i> 	Priority flora species have been recorded in the disturbance footprint for the Parker Range Iron Ore Project area. <ul style="list-style-type: none"> <i>Chamelaucium sp. Parker Range (B.H. Smith 1255) (P1)</i>; <i>Lepidosperma sp. Parker Range (N. Gibson & M. Lyons 2094) (P1)</i>; <i>Lepidosperma sp. Mt Caudan (N. Gibson & M. Lyons 2081) (P1)</i>; <i>Westringia acifolia (P1)</i>; <i>Microrys sp. nov (undescribed)</i> <i>Acacia concolorans (P2)</i>; <i>Baeckea grandibracteata subsp. Parker Range (P3)</i>; <i>Hakea pendens (P3)</i>; <i>Cryptandra crispula (P3)</i>; <i>Rinzia torquata (Priority 3)</i>;

- *Lepidosperma ferricola* (Priority 3);
- *Verticordia mitoides* (Priority 3), and
- *Banksia shanklandiorum* (P4).

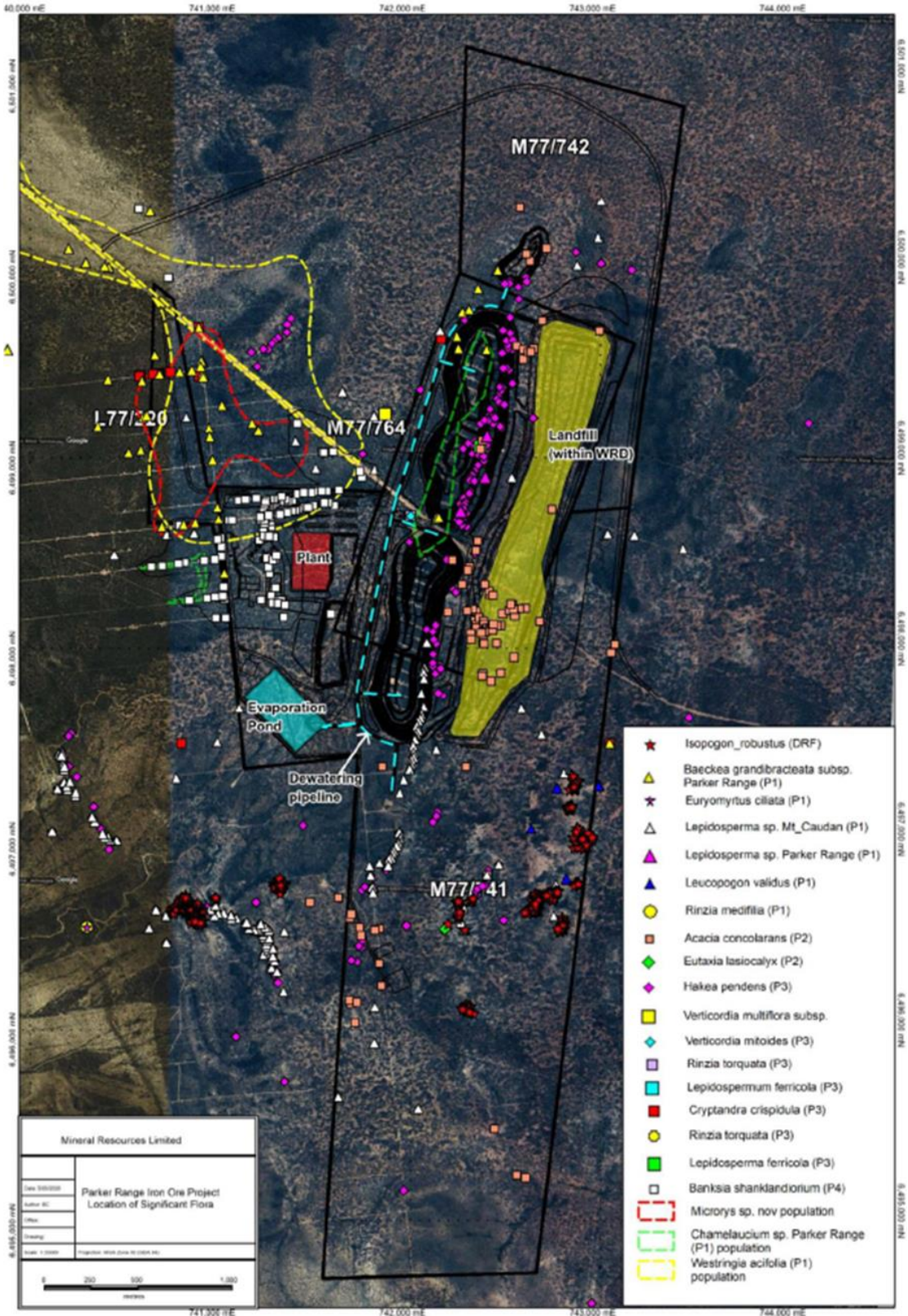


Figure 1: Distance to sensitive receptors

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Works Approval Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Works Approval Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the Works Approval Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table .

The Revised Works Approval W6389/2020/1 that accompanies this Amendment Report authorises construction and time-limited operations. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the Premises. A risk assessment for the operational phase has been included in this Amendment Report, however licence conditions will not be finalised until the department assesses the licence application.

Table 4. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
Operation (Including time-limited operations)								
Screening, crushing, unloading, loading and stockpiling of material Vehicle movements	Dust increase with capacity	Air/windborne pathway causing impacts to health of vegetation / fauna	Native vegetation Fauna	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Existing conditions: Condition 6 –operational requirements for the control of dust from mobile plant.	Applicant's dust controls conditioned within works approval.
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance	Native vegetation	Refer to Section 3.1	C = Slight L = Possible Low Risk	Y	Existing conditions: Condition 1 – construction requirements for stormwater drainage infrastructure to be in place. Condition 6 - operational requirements for clean stormwater to be diverted around mobile plant and stockpiles.	Applicant's contaminated stormwater controls conditioned within works approval.
	Hydrocarbon / chemical spills	Overland runoff potentially causing ecosystem disturbance.	Native vegetation soil	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	N/A <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> apply.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Works Approval Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

Works Approval W6389/2020/1

IR-T15 Amendment report template v3.0 (May 2021)

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Works Approval Holder was provided with draft amendment on 24/10/2022	<p>Polaris Metals Pty Ltd does not propose any amendments to the draft Works Approval as provided by DWER.</p> <p>As such, you can waiver the consultation period and progress with issue of the works approval.</p>	Noted.

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Works Approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

Table 6: Summary of works approval amendments

Condition no.	Proposed amendments
Front page - Category 12	Increase throughput capacity of screening material from 70,000 to 500,000 tonnes per year.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input checked="" type="checkbox"/>	Current works approval number:	W6389/2020/1	
Amendment to licence	<input type="checkbox"/>	Current licence number:		
		Relevant works approval number:	N/A	<input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:	None	<input type="checkbox"/>
Date application received	17/08/2022			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Polaris Metals Pty Ltd (100% subsidiary of MRL)			
Premises name	Parker Range Iron Ore Project			
Premises location	M77/741-I, M77/742, M77/764-I			
Local Government Authority	Shire of Yilgarn			
Application documents				
HPCM file reference number:	DER2020/000173~1			
Key application documents (additional to application form):	Application form Supporting document			
Scope of application/assessment				
Summary of proposed activities or changes to existing operations.	<u>Works approval amendment</u> MinRes seeks an amendment to Category 12, to allow for an increased production capacity of the mobile screening plant equipment within the premises boundary.			

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 5 – Processing of ore	5,000,000 tonnes per year.	No change.
Category 6 – Dewatering.	1,000,000 tonnes per year.	No change.
Category 89 – Putrescible landfill.	1,250 tonnes per year.	No change.
Category 12 – Screening of material	500,000 tonnes per year.	Increase throughput capacity of mobile crushing and screening plant from 70,000 tonnes per year to 500,000 tonnes per year

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 892 and 1060 EPA Report No: MS 892 specifies requirements relating to the management of impacts on conservation significant flora and fauna. Monitoring of ambient PM ¹⁰ concentrations at the sensitive receptor and management of dust complaints is also required under MS 892. MS 1060 approved on 13 July 2017 specified a time limit for proposal implementation requiring the proponent to not commence implementation of the proposal after 12 April 2022
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: EPBC 2010/5435 The EPBC approval contains requirements in relation to undertaking baseline flora surveys to investigate local population(s) of <i>Isopogon robustus</i> and submission of a monitoring plan. A Malleefowl Management Plan is also required under the EPBC approval.

<p>Has the applicant demonstrated occupancy (proof of occupier status)?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input checked="" type="checkbox"/> Expiry: M77/741-I & M77/742 Exp: 19 Oct 2030 M 77/764-I Exp: 24 Jan 2028 Other evidence <input type="checkbox"/> Expiry:</p>
<p>Has the applicant obtained all relevant planning approvals?</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p>	<p>Approval: N/A Expiry date: N/A If N/A explain why? Project located on mining tenure</p>
<p>Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>CPS No: N/A No clearing is proposed.</p>
<p>Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Application reference No: N/A Licence/permit No: N/A No clearing is proposed.</p>
<p>Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Application reference No: Licence/permit No: Licence / permit not required.</p>
<p>Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Name: Goldfield groundwater area Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office:</p>
<p>Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p>

<p>Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p><i>Dangerous Goods Safety Act 2004</i> <i>Environment Protection and Biodiversity Conservation Act 1999</i> <i>Mining Act 1976</i> <i>Rights in Water and Irrigation Act 1914</i></p>
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Classification: N/A Date of classification: N/A</p>