



# Environmental Protection Authority

EPA Referral Form

## Form for the referral of a proposal to the Environmental Protection Authority under Section 38 of the *Environmental Protection Act 1986*

Referrer information				
Who is referring this proposal?		<input checked="" type="checkbox"/> Proponent <input type="checkbox"/> Decision-making authority <input type="checkbox"/> Community member/third party		
Name Tawake Rakai		Signature		
Position	Executive General Manager, Transmission Asset Management	Organisation	AGI Operations Pty Limited	
Email	tawake.rakai@agig.com.au			
Address	Level 22	140 St Georges Terrace		
	Perth	WA	6000	
Date	8 <sup>th</sup> April 2021			
Does the referrer request that the EPA treat any part of the proposal information in the referral as confidential? <i>Provide confidential information in a separate attachment.</i>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Referral declaration for organisations, proponents and decision-making authorities:</b>  I, Tawake Rakai, declare that I am authorised to refer this proposal on behalf of AGI Operations Pty Limited and further declare that the information contained in this form is true and not misleading.				
Part A: Proponent and proposal description				
Proponent information				
Name of the proponent/s (including Trading Name if relevant)		AGI Operations Pty Limited		
Australian Company Number(s) <input type="checkbox"/>		76 166 900 170		
OR				
Australian Business Number(s) <input checked="" type="checkbox"/>				
Contact for the proposal (if different from the referrer)  <i>Please include: name, physical address, phone, and email.</i>		<input checked="" type="checkbox"/> Yes Mark Brown, Senior HSE Advisor 08 9223 4907; mark.brown@agig.com.au Level 22, 140 St Georges Tce, PERTH, WA 6000		
Does the proponent have the legal access required for the implementation of all aspects of the proposal?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

<p><b>If yes, provide details of legal access authorisations / agreements / tenure.</b></p> <p><b>If no, what authorisations / agreements / tenure is required and from whom?</b></p>	Land Tenure under Pipeline Licence and Planning Act Approval
<b>Proposal type</b>	
<p><b>What type of proposal is being referred?</b></p> <p>For a change to an approved proposal please state the Ministerial Statement number/s (MS No./s) of the approved proposal</p> <p>For a derived proposal please state the Ministerial Statement number (MS No.) of the associated strategic proposal</p>	<p><input checked="" type="checkbox"/> significant – new proposal</p> <p><input type="checkbox"/> significant – change to approved proposal (MS No./s: _____)</p> <p><input type="checkbox"/> proposal under an assessed planning scheme</p> <p><input type="checkbox"/> strategic</p> <p><input type="checkbox"/> derived (Strategic MS No.: _____)</p>
<p>For a significant proposal:</p> <ul style="list-style-type: none"> <li>Why do you consider the proposal may have a significant effect on the environment and warrant referral to the EPA?</li> </ul>	The Proposal includes clearing of up to 90 ha within a 213 ha Development Envelope to support the development and operation of a gas plant, interconnecting pipeline and supporting infrastructure.
<p>For a proposal under an assessed planning scheme, provide the following details:</p> <ul style="list-style-type: none"> <li>Scheme name and number</li> </ul> <p>For the Responsible Authority:</p> <ul style="list-style-type: none"> <li>What new environmental issues are raised by the proposal that were not assessed during the assessment of the planning scheme?</li> <li>How does the proposal not comply with the assessed scheme and/or the environmental conditions in the assessed planning scheme?</li> </ul>	Not applicable.
<b>Proposal description</b>	
Title of the proposal	West Erregulla Processing Plant and Pipeline
Name of the Local Government Authority in which the proposal is located.	Shire of Irwin and Shire of Three Springs
<p>Location:</p> <p>a) street address, lot number, suburb, and nearest road intersection; or</p> <p>b) if remote the nearest town and distance and direction from that town to the proposal site.</p>	The Proposal is located approximately 30 km southeast of Dongara, in the South West region of Western Australia.
<p>Proposal description – including the key characteristics of the proposal</p> <p><i>Provide as an attachment to the form</i></p>	<p>AGI Operations Pty Limited is proposing to construct and operate a gas processing plant and pipeline near Dongara, WA collectively referred to as the West Erregulla Gas Project (WER). The processing plant will process gas produced by Warrego Energy and Strike Energy from upstream wells. The processed gas will then be transported via a new interconnecting pipeline to tie into the Dampier to Bunbury Natural Gas Pipeline (DBNGP). The Proposed Action includes: :</p> <ul style="list-style-type: none"> <li>a gas processing facility (West Erregulla Facility - WEF) with nominal design flow of 87 terajoules per day (TJ/d);</li> </ul>

	<ul style="list-style-type: none"> <li>• a 16.5 km interconnecting buried gas pipeline between the WEF and the Dampier to Bunbury Natural Gas Pipeline (DBNGP) tie-in point;</li> <li>• a custody transfer metering facility located at the DBNGP tie-in point;</li> <li>• a pig launcher station; and</li> <li>• supporting infrastructure including but not limited to power generation, flare system, incinerator, fire water system, office and accommodation, water treatment package, back-up diesel system and communications.</li> </ul> <p><b>Exclusions</b></p> <p>Wellhead connections and gathering lines from wellheads to the midstream tie-in point A are not included in the Proposed Action.</p> <p>Additional information on the proposal is include the Construction Environmental Management Plan (CEMP) and Environmental Review Document (ERD) submitted with the proposal.</p>
<p>Have you provided electronic spatial data, maps and figure in the appropriate format?</p> <p><i>Refer to instructions at the front of the form</i></p>	<p>✓ Yes <input type="checkbox"/> No</p> <p>Figures are provided in the ERD. And shape files are included in this proposal application.</p>
<p>What is the current land use on the property, and the extent (area in hectares) of the property?</p>	<p>The Proposal includes a disturbance footprint of 90 ha within a Development Envelope of approximately 213 ha.</p> <p>The Proposal occurs within Energy Permit (EP) 469.</p> <p>The Proposal overlaps area managed by the Bundi Yamatji Aboriginal Corporation (BYAC).</p>
<p>Have you had pre-referral discussions with the EPA at DWER Services? If so, quote the reference number and/or the DWER contact.</p>	<p>Pre-referral consultation sessions for the Proposal were held with the EPA Services on 16 December 2020, 15 February 2021 and 3 March 2021.</p> <p>Contact: Helen Butterworth and Robert Hughes</p>
<b>Part B: Environmental impacts</b>	
<b>Environmental factors</b>	
<p>What are the likely significant environmental factors for this proposal?</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Benthic Communities and Habitat</li> <li><input type="checkbox"/> Coastal Processes</li> <li><input type="checkbox"/> Marine Environmental Quality</li> <li><input type="checkbox"/> Marine Fauna</li> <li>✓ Flora and Vegetation</li> <li><input type="checkbox"/> Landforms</li> <li><input type="checkbox"/> Subterranean Fauna</li> <li><input type="checkbox"/> Terrestrial Environmental Quality</li> <li>✓ Terrestrial Fauna</li> <li>✓ Inland Waters</li> <li><input type="checkbox"/> Air Quality</li> <li>✓ Greenhouse Gas Emissions</li> <li><input type="checkbox"/> Social Surroundings</li> <li><input type="checkbox"/> Human Health</li> </ul>

For **each** of the environmental factors identified above, complete the following table, or provide the information in a supplementary report

Potential environmental impacts		
1	EPA Factor	Flora and Vegetation
2	<p><b>EPA policy and guidance</b> - What have you considered and how have you applied them in relation to this factor?</p>	<p><b>EPA Objective:</b></p> <p>The EPA's overarching Statement of Environmental Principles, Factors and Objectives (EPA 2020) lists the objective for this factor as:</p> <ul style="list-style-type: none"> <li>• <i>To protect flora and vegetation so that biological diversity and ecological integrity are maintained.</i></li> </ul> <p>In considering this objective, the Proponent has sought to quantify the existing biological diversity and ecological integrity of the area through environmental surveying.</p> <p><b>Policy and guidance:</b></p> <p>The following policy and guidance is relevant to this factor:</p> <ul style="list-style-type: none"> <li>• <i>Statement of Environmental Principles, Factors and Objectives</i> (EPA 2020);</li> <li>• <i>Environmental Factor Guideline: Flora and Vegetation</i> (EPA 2016);</li> <li>• <i>Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment</i> (EPA 2016);</li> <li>• <i>Instructions on how to prepare an Environmental Review Document</i> (EPA 2020);</li> <li>• <i>Statutory Guidelines for Mine Closure Plans</i> (DMIRS 2020);</li> <li>• <i>Cumulative environmental impacts of development in the Pilbara region: Advice of the Environmental Protection Authority to the Minister for Environment under Section 16(e) of the Environmental Protection Act 1986</i> (EPA 2014);</li> <li>• <i>WA Environmental Offsets Policy</i> (GoWA 2011); and</li> <li>• <i>WA Environmental Offsets Guidelines</i> (GoWA 2014).</li> </ul> <p>The Proponent has considered the above-mentioned policy and guidance in the following ways:</p> <ul style="list-style-type: none"> <li>• planning, design and implementation of the environmental surveys undertaken;</li> <li>• preliminary assessment of potential impacts; and</li> <li>• application of the mitigation hierarchy.</li> </ul>

3	<p><b>Consultation</b> – Outline the outcomes of consultation in relation to the potential environmental impacts</p>	<p>Consultation with decision-making authorities Department of Water and Environmental Regulation (DWER); Department of Planning, Land and Heritage (DPLH); Department of Jobs, Tourism, Science and Innovation (DJTSI) and key stakeholders is ongoing.</p> <p>A referral under the EPBC Act has also been completed for the project (EPBC 2021/8907). A Stakeholder Consultation Table is available within the CEMP</p> <p>The Proponent will continue to consult with relevant stakeholders during the environmental assessment process, and after as required.</p>
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4	<p><b>Receiving environment</b> – Describe the current condition of the receiving environment in relation to this factor.</p>	<p>The receiving environment in the Development Envelope is generally well understood. Relevant flora and vegetation surveys include:</p> <ul style="list-style-type: none"> <li>• West Erregulla Pipeline Flora and Fauna Survey (ELA 2020a).</li> <li>• West Erregulla targeted threatened flora survey (ecologia Environment 2018).</li> <li>• Review of Key Potential Flora, Vegetation and Fauna values on the proposed pipeline for Strike Energy near Dongara (Mattiske Consulting Pty Ltd 2020)</li> <li>• West Erregulla Project Flora and Vegetation Assessment (Woodman Environmental Consulting 2013)</li> </ul> <p>The Development Envelope is located within Interim Biogeographic Regionalisation for Australia (IBRA) Geraldton Sandplains bioregion and the Lesueur Sandplain subregion. Six vegetation communities have been delineated within the Development Envelope, with <i>Banksia</i> and <i>Hakea</i> best represented throughout the survey area. None of the vegetation communities are restricted or represent threatened or priority ecological communities.</p> <p>The majority of intact vegetation in the Development Envelope is considered to be in Excellent condition (209 ha; 98.4 %). A small proportion is already cleared (3.5 ha; 1.6 %).</p> <p>Historical records of one threatened flora species, <i>Paracaleana dixonii</i>, (EPBC Act endangered; BC Act vulnerable) are known from the Development Envelope; however, no known populations of this species currently occur in the Development Envelope. Eight Priority flora species were recorded in the Development Envelope during recent survey effort, including:</p> <ul style="list-style-type: none"> <li>• DBCA Priority 1 (P1) <ul style="list-style-type: none"> <li>○ <i>Micromyrtus rogeri</i></li> <li>○ <i>Lasiopetalum ogilvieanum</i></li> </ul> </li> <li>• DBCA Priority 3 (P3) <ul style="list-style-type: none"> <li>○ <i>Guichenotia alba</i></li> <li>○ <i>Mesomelaena stygia subsp. Deflexa</i></li> <li>○ <i>Stylidium drummondianum</i></li> </ul> </li> <li>• DBCA Priority 4 (P4) <ul style="list-style-type: none"> <li>○ <i>Banksia scabrella</i></li> <li>○ <i>Eucalyptus macrocarpa subsp. elachantha</i></li> <li>○ <i>Stawellia dimorphantha</i></li> </ul> </li> </ul> <p>Refer to the receiving environment outlined in Section 5 of the ERD.</p>
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5	<b>Proposal activities</b> – Describe the proposal activities that have the potential to impact the environment	<p>Proposal activities that have the potential to impact flora and vegetation include but are not limited to:</p> <ul style="list-style-type: none"> <li>• Direct loss through clearing of vegetation</li> <li>• Introduction or spread of weeds as a result of disturbance and vehicle/machinery movements</li> </ul> <p>Refer to proposal activities outlined in Section 5 of the ERD.</p>
6	<b>Mitigation</b> – Describe the measures proposed to manage and mitigate the potential environmental impacts.	<p>The Proponent has reviewed the Proposal design to minimise potential impacts to Priority flora species, as far as practicable. This includes minimisation (30 m width in a 100 m envelope) and localised micro-siting of the pipeline route within the Development Envelope to avoid or minimise impacts to Priority flora species.</p> <p>The Proponent commits to a pre-clearance site walk over to ensure no individuals of <i>P. dixonii</i> are present within the construction footprint.</p> <p>Other mitigation methods to be implemented include but are not limited to:</p> <ul style="list-style-type: none"> <li>• Minimise clearing the extent necessary;</li> <li>• Implement vehicle/machinery hygiene protocols;</li> <li>• Weed and dust control during construction, as required.</li> </ul> <p>Refer to mitigation measures outlined in Section 5.6 of the CEMP.</p>
7	<b>Impacts</b> – Assess the impacts of the proposal and review the residual impacts against the EPA objective.	Refer to Section 5.5 in the ERD for discussion regarding assessment of impacts and residual impacts against the EPA objective.
8	<b>Assumptions</b> - Describe any assumptions critical to your assessment e.g. particular mitigation measures or regulatory conditions.	The proposed approaches to mitigation conditions are included in Section 6 of the CEMP.
1	<b>EPA Factor</b>	<b>Fauna</b>

2	<p><b>EPA policy and guidance</b> - What have you considered and how have you applied them in relation to this factor?</p>	<p><b>EPA Objective:</b></p> <p>The EPA's overarching Statement of Environmental Principles, Factors and Objectives (EPA 2020) lists the objective for terrestrial fauna as follows:</p> <ul style="list-style-type: none"> <li>• To protect terrestrial fauna so that biological diversity and ecological integrity are maintained</li> </ul> <p>In considering this objective, the Proponent has sought to quantify the existing biological diversity and ecological integrity of the area through environmental surveying.</p> <p><b>Policy and guidance:</b></p> <p>The following policy and guidance are relevant to this factor:</p> <p>The following policy and guidance are relevant to this factor:</p> <ul style="list-style-type: none"> <li>• <i>Environmental Factor Guideline: Terrestrial Fauna</i> (EPA 2016)</li> <li>• <i>Technical Guidance – Terrestrial Fauna Surveys</i> (EPA 2016)</li> <li>• <i>Technical Guidance – Sampling Methods for Terrestrial Vertebrate Fauna</i> (EPA 2016)</li> <li>• <i>Technical Guidance – Sampling Methods for Short Range Endemic Invertebrate Fauna</i> (EPA 2016).</li> </ul> <p>We have also considered the following:</p> <ul style="list-style-type: none"> <li>• <i>Survey guidelines for Australia's threatened mammals</i> (Department of Sustainability, Environment, Water, population and Communities (DSEWPac 2011)</li> <li>• <i>Survey guidelines for Australia's threatened reptiles</i> (DSEWPac 2011)</li> <li>• <i>Survey guidelines for Australia's threatened bats</i> (DEWHA 2010)</li> </ul> <p>The Proponent has considered the above-mentioned policy and guidance in the following ways:</p> <ul style="list-style-type: none"> <li>• planning, design and implementation of the environmental surveys undertaken;</li> <li>• preliminary assessment of potential impacts; and</li> <li>• application of the mitigation hierarchy.</li> </ul>
3	<p><b>Consultation</b> – Outline the outcomes of consultation in relation to the potential environmental impacts</p>	<p>Consultation with decision-making authorities Department of Water and Environmental Regulation (DWER); Department of Planning, Land and Heritage (DPLH); Department of Jobs, Tourism, Science and Innovation (DJTSI) and key stakeholders is ongoing.</p> <p>A referral under the EPBC Act has also been completed for the project (EPBC 2021/8907). A Stakeholder Consultation Table is available within the CEMP</p> <p>The Proponent will continue to consult with relevant stakeholders during the environmental assessment process, and after as required.</p>



4	<p><b>Receiving environment</b> – Describe the current condition of the receiving environment in relation to this factor.</p>	<p>The receiving environment in the Development Envelope is generally well understood. Relevant terrestrial fauna surveys include:</p> <ul style="list-style-type: none"> <li>• West Erregulla Pipeline Flora and Fauna Survey (ELA 2020a).</li> <li>• Review of Key Potential Flora, Vegetation and Fauna values on the proposed pipeline for Strike Energy near Dongara (Mattiske Consulting Pty Ltd 2020)</li> </ul> <p>Fauna habitat areas (outside of cleared areas) are considered to be in Excellent condition. Three broad fauna habitats have been mapped within the Development Envelope including:</p> <ul style="list-style-type: none"> <li>• <b>Fauna habitat 1:</b>(72.2 ha) <i>Allocasuarina</i> tall sparse shrubland over shrubs and sedgeland on sandy plains,</li> <li>• <b>Fauna habitat 2:</b> (95.2 ha) <i>Banksia</i> spp. and occasional <i>Eucalyptus todtiana</i> mid open woodland over shrubs and sedgeland on sandy plains</li> <li>• <b>Fauna habitat 3:</b> (41.4 ha) <i>Allocasuarina</i> tall sparse shrubland over shrubs and sedgeland on stony rises.</li> </ul> <p>In addition, a total of 3.5 ha in the Development Envelope is already cleared.</p> <p>Four conservation significant fauna species have the potential to occur in the Development Envelope including:</p> <ul style="list-style-type: none"> <li>• Carnaby's Cockatoo (<i>Calyptorhynchus latirostris</i>; listed as EN under the EPBC Act and BC Act),</li> <li>• Fork-tailed Swift (<i>Apus pacificus</i>; listed as M1 under the EPBC Act and BC Act)</li> <li>• Grey Falcon (<i>Falco hypoleucos</i>; listed as VU under the BC Act)</li> <li>• Peregrine Falcon (<i>Falco peregrinus</i>; listed as OS under the BC Act).</li> </ul> <p>The Development Envelope is in the non-breeding range for Carnaby's Cockatoo (Fauna Habitat 2) and the species therefore likely only occurs as an itinerant forager, due to the presence of some low quality foraging habitat comprising <i>Banksia</i> and <i>Hakea</i> shrubland.</p> <p>The remaining three species potentially occur as itinerant aerial visitors, and are unlikely to be reliant on habitats present in the Development Envelope. Refer to the receiving environment outlined in Section 6 of the ERD.</p>
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5	<b>Proposal activities</b> – Describe the proposal activities that have the potential to impact the environment	<p>Proposal activities that have the potential to impact terrestrial fauna include:</p> <ul style="list-style-type: none"> <li>• Direct loss of habitat from clearing and construction;</li> <li>• Habitat fragmentation; and</li> <li>• Injury or mortality of individuals from vehicle or machinery interaction.</li> </ul>
6	<b>Mitigation</b> – Describe the measures proposed to manage and mitigate the potential environmental impacts.	<p>The Proponent has reviewed the Proposal design to ensure potential impacts to Carnaby's Cockatoo foraging habitat are minimised as far as practicable. The Proponent commits to a pre-clearance site walk over with a trained fauna handler to ensure no fauna individuals will be directly impacted by clearing. This includes the inspection of any hollows.</p> <p>The majority of the pipeline route will be rehabilitated to minimise the likelihood of habitat fragmentation and the route is located adjacent and parallel to other previous disturbance (firebreak track)</p> <p>Refer to mitigation measures outlined in Section 6.7 of the ERD.</p>
7	<b>Impacts</b> – Assess the impacts of the proposal and review the residual impacts against the EPA objective.	Refer to Section 6.5 in the ERD for assessment of impacts and residual impacts against the EPA objective.
8	<b>Assumptions</b> - Describe any assumptions critical to your assessment e.g. particular mitigation measures or regulatory conditions.	The proposed approaches to mitigation conditions are included in Section 6.7 of the ERD.
1	<b>EPA Factor</b>	<b>Inland Waters</b>

2	<p><b>EPA policy and guidance</b> - What have you considered and how have you applied them in relation to this factor?</p>	<p><b>EPA Objective:</b></p> <p>The EPA's overarching Statement of Environmental Principles, Factors and Objectives (EPA 2020) lists the objectives for inland waters as follows:</p> <ul style="list-style-type: none"> <li>• <i>To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected.</i></li> </ul> <p>In considering this objective, the Proponent has sought to understand and describe the existing hydrological regime.</p> <p><b>Policy and guidance:</b></p> <p>The following guidance is relevant to this factor:</p> <ul style="list-style-type: none"> <li>• <i>Environmental Factor Guideline: Inland Waters</i> (EPA 2018);</li> <li>• <i>Statement of Environmental Principles, Factors and Objectives</i> (EPA 2020);</li> <li>• <i>Instructions on how to prepare an Environmental Review Document</i> (EPA 2020);</li> <li>• <i>Statutory Guidelines for Mine Closure Plans</i> (DMIRS 2020);</li> <li>• <i>Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans</i> (EPA 2018); and</li> <li>• <i>Cumulative environmental impacts of development in the Pilbara region: Advice of the Environmental Protection Authority to the Minister for Environment under Section 16(e) of the Environmental Protection Act 1986</i> (EPA 2014).</li> </ul> <p>The Proponent has considered the above-mentioned policy and guidance in the following ways:</p> <ul style="list-style-type: none"> <li>• planning, design and implementation of the environmental surveys undertaken;</li> <li>• preliminary assessment of potential impacts; and</li> <li>• application of the mitigation hierarchy.</li> </ul>
3	<p><b>Consultation</b> – Outline the outcomes of consultation in relation to the potential environmental impacts</p>	<p>Consultation with decision-making authorities Department of Water and Environmental Regulation (DWER); Department of Planning, Land and Heritage (DPLH); Department of Jobs, Tourism, Science and Innovation (DJTSI) and key stakeholders is ongoing.</p> <p>A referral under the EPBC Act has also been completed for the project (EPBC 2021/8907). A Stakeholder Consultation Table is available within the CEMP</p> <p>The Proponent will continue to consult with relevant stakeholders during the environmental assessment process, and after as required.</p>

4	<p><b>Receiving environment</b> – Describe the current condition of the receiving environment in relation to this factor.</p>	<p><b>Hydrological</b></p> <p>The receiving environment in the Development Envelope is generally well understood. Relevant hydrological investigations include:</p> <ul style="list-style-type: none"> <li>• Hydrology and Hydrogeology Baseline Report (ELA 2020b)</li> </ul> <p>The Development Envelope is devoid of any significant permanent surface water features however smaller minor drainage features dissect the surrounding area. The most significant surface water features in the vicinity of the Proposal are two regional drainage systems – the Arrowsmith River and the Irwin and Lockier Rivers, located approximately 15 km and 22k m to the south and north of the Development Envelope respectively. The nearest watercourse is Sand Plain Creek, located approximately 6 km north of the Development Envelope.</p> <p><b>Hydrogeological</b></p> <p>The receiving environmental in the Development Envelope is generally well understood. Relevant hydrogeological investigations include:</p> <ul style="list-style-type: none"> <li>• Hydrology and Hydrogeology Baseline Report (ELA 2020b)</li> <li>• West Erregulla-2 Exploration Well – Groundwater Monitoring Plan (ELA 2018)</li> <li>• West Erregulla Groundwater Assessment (RPS 2011)</li> </ul> <p>The Proposal is located within the Twin Hills Groundwater subarea. Two major regional groundwater resources exist within the Development Envelope; the Yarragadee Formation and underlying Lesueur Sandstone. Stratigraphically between the two groundwater resources lie the underlying Cadda Formation (at around 1700 mAHD) of generally low permeability and acts as a regional aquiclude, Cattamarra Coal Measures and Eneabba Formation that both host smaller, localised aquifers.</p> <p>The Yarragadee Formation Aquifer has been identified as a significant groundwater resources to the Proposal. The upper water table in the Yarragadee Formation is more than 100 m below ground level.</p> <p>The water quality in the Yarragadee Aquifer is fresh to brackish, with salinity in the aquifer ranging between 500 to 1,000 mg/L and increasing with depth (RPS, 2011).</p> <p>Refer to the receiving environment outlined in Section 7 of the ERD.</p>
5	<p><b>Proposal activities</b> – Describe the proposal activities that have the potential to impact the environment</p>	<p>Proposal activities that have the potential to impact inland waters include:</p> <ul style="list-style-type: none"> <li>• alteration of surface water hydrology as a result of the installation of infrastructure; and</li> <li>• Degradation of groundwater quality from hazardous materials.</li> </ul>

6	<b>Mitigation</b> – Describe the measures proposed to manage and mitigate the potential environmental impacts.	The Proponent will apply the mitigation hierarchy to the Proposal in relation to inland waters. Refer to mitigation measures outlined in Section 7.7 of the ERD.
7	<b>Impacts</b> – Assess the impacts of the proposal and review the residual impacts against the EPA objective.	Refer to Sections 7.5 in the ERD for discussion regarding assessment of impacts and residual impacts against the EPA objective.
8	<b>Assumptions</b> - Describe any assumptions critical to your assessment e.g. particular mitigation measures or regulatory conditions.	The proposed approaches to mitigation conditions are included in Section 7.7 of the ERD.
1	<b>EPA Factor</b>	<b>Greenhouse Gas Emissions</b>
2	<b>EPA policy and guidance</b> - What have you considered and how have you applied them in relation to this factor?	<p><b>EPA Objective:</b></p> <p>The EPA's overarching Statement of Environmental Principles, Factors and Objectives (EPA 2020) lists the objective for this factor as:</p> <ul style="list-style-type: none"> <li>• <i>To reduce net greenhouse gas emission in order to minimise the risk of environmental harm associated with climate change.</i></li> </ul> <p><b>Policy and guidance:</b></p> <p>The following policy and guidance are relevant to this factor:</p> <ul style="list-style-type: none"> <li>• <i>Statement of Environmental Principles, Factors and Objectives</i> (EPA 2020);</li> <li>• <i>Environmental Factor Guideline: Greenhouse Gas Emissions</i> (EPA 2020); and</li> <li>• <i>National Greenhouse and Energy Reporting Act 2007</i> (Cth).</li> </ul> <p>In considering this objective, the Proponent will provide estimates for the construction and operation of the Proposal. The assessment will focus specifically on greenhouse gas emissions.</p>
3	<b>Consultation</b> – Outline the outcomes of consultation in relation to the potential environmental impacts	<p>Consultation with decision-making authorities (Department of Water and Environmental Regulation (DWER); Department of Biodiversity, Conservation and Attractions (DBCA); Department of Mining, Industry Regulation and Safety (DMIRS)) and key stakeholders is ongoing.</p> <p>The Proponent will continue to consult with relevant stakeholders during the environmental assessment process, and after as required.</p>
4	<b>Receiving environment</b> – Describe the current condition of the receiving environment in relation to this factor.	Existing gas operations in the Development Envelope generate greenhouse gas emissions predominantly from fuel combustion and electricity generation.
5	<b>Proposal activities</b> – Describe the proposal activities that have the potential to impact the environment	<p>Proposal activities (typical of gas extraction) that have the potential to impact air quality include:</p> <ul style="list-style-type: none"> <li>• production of greenhouse gases from electricity generation; and</li> <li>• diesel combustion by fixed and mobile equipment.</li> </ul>

6	<b>Mitigation</b> – Describe the measures proposed to manage and mitigate the potential environmental impacts.	<p>The Proponent has applied the mitigation hierarchy to the Proposal in relation to greenhouse gases, by decreasing through design the emissions by 22,600 tCO<sub>2e</sub>. Additionally the Proponent proposes to offset the full volume of Reservoir Gas emissions predicted for the project from the commencement of the project.</p> <p>Refer to mitigation measures outlined in Section 8 and Appendix I of the ERD.</p>
7	<b>Impacts</b> – Assess the impacts of the proposal and review the residual impacts against the EPA objective.	Refer to the Section 8.6 in the ERD for discussion regarding assessment of impacts and residual impacts against the EPA objective.
8	<b>Assumptions</b> - Describe any assumptions critical to your assessment e.g. particular mitigation measures or regulatory conditions.	The proposed approaches to mitigation conditions are included in Section 8.7 of the ERD and Appendix I – Greenhouse Gas Management Plan.

## Part C: Other approvals and regulation

### State and Local Government approvals

Is rezoning of any land required before the proposal can be implemented?

☐ Yes

☒ No

If yes, please provide details.

If this proposal has been referred by a decision-making authority, what approval(s) are required from you?

Not applicable

Please identify other approvals required for the proposal:

Proposal activities e.g. clearing, dewatering, mining, processing, dredging	Land tenure/access e.g. Crown land, Mining lease, specify legislation for access if relevant	Type of approval e.g. Native Vegetation Clearing Permit, licence, mining proposal,	Legislation regulating the activity e.g. EP Act 1986 – Part V, RiWI Act 1914, Mining Act 1979
Gas processing		Works approval and licence	<i>Environmental Protection Regulations 1987</i>
Waste treatment and disposal		Works approval and licence	<i>Environmental Protection Regulations 1987</i>
Petroleum Pipelines	Pipeline Licence	Pipeline Licence (includes Safety Case and Environmental Plan approval)	<i>Petroleum Pipelines Act 1969</i>
Gas Processing	Major Hazard Facility	Major Hazard Facility Licence	<i>Dangerous Goods Safety (Major Hazard Facilities) Regulations 2007</i>

### Commonwealth Government approvals

Does the proposal involve an action that may be or is a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)?

☒ Yes

☐ No

Has the proposed action been referred? If yes, when was it referred and what is the reference number (EPBC No.)?

☒ Yes

☐ No

Date: 28<sup>th</sup> February 2021

EPBC No.: \_2021-8907\_

If referred, has a decision been made on whether the proposed action is a controlled action? If 'yes', check the appropriate box and provide the decision in an attachment.

☐ Yes

☒ No

☐ Decision – controlled action

☐ Decision – not a controlled action

If the proposal is determined to be a controlled action, do you request that this proposal be assessed under the bilateral agreement or as an accredited assessment?

☒ Yes - Bilateral

☐ No

☐ Yes - Accredited

Is approval required from other Commonwealth Government/s for any part of the proposal?

If yes, describe.

☐ Yes

☒ No

Approval:

