

Appendix A: Change notice – Regulation 22

<b>Interest holder</b>	Tamboran B2 Pty Ltd	<b>EMP Title</b>	Amungee NW Delineation Program EP98		<b>Unique EMP ID</b>	ORI11-3	<b>Mod #</b>	1	<b>Date</b>	23 January 2025
<b>Brief Description</b>	Amendment of the offsite stormwater release criteria to provide consistency in stormwater discharge criteria across all Tamboran exploration and appraisal well sites.									
<b>Geospatial files included?</b>	N/A									
<b>Does the proposed change result in a new, or increased, or potential or actual environmental impact or risk?</b>	<b>If an INCREASE in the existing potential or actual environmental risk, is it provided for in the EMP?</b>	<b>Does the proposed change require additional mitigation measures to be included?</b>	<b>Has additional stakeholder engagement been conducted?</b>	<b>Does it require additional environmental performance standards and measurement criteria?</b>	<b>Does it affect compliances with Sacred Site Authority Certificates?</b>	<b>Does it affect current rehabilitation, weed fire, wastewater, erosion and sediment control, spill or emergency response plans?</b>	<b>Will the environmental outcome continue to be achieved, and will the impacts and risks be managed to ALARP and acceptable?</b>			
No. There are no new or increased environmental impacts or risks. The revised discharge criteria have been discussed in the EMP and is evaluated to be ALARP and acceptable.	No No increased impact or risk with sufficient controls outlined in the EMP.	No. Existing mitigation measures are in place covering stormwater release.	No Stakeholder engagement is not required as this change is aligning with existing stormwater release criteria in recent EMPs.	No. Environmental performance standards within the existing approved EMP are sufficient.	No. Activity covered under the existing AAPA certificates C2022/002.	Yes. Section 7.3 of the erosion and sediment control plan (Appendix G) has been updated to align with this amendment.  All other plans remain valid and appropriate.	Yes. Stormwater monitoring outlined in <i>Table 55: Environmental outcomes, performance standards and measurement criteria – Surface water</i> will be met.			
<b>Additional contextual information</b>										

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<b>Current EMP text</b>	<b>Amended EMP text</b>
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<p><b>4.15.5 Stormwater</b></p> <p><b>Table 24: Stormwater release and re-use limits</b></p> <table border="1"> <thead> <tr> <th>Monitoring parameter</th> <th>Release limit</th> <th>Limit basis</th> </tr> </thead> <tbody> <tr> <td>Electrical conductivity</td> <td>1,300 µs/cm</td> <td>Irrigation salinity values used due to the absence of adjacent watercourses, with the protection of soils the most relevant environmental Value (EV). The guideline was based on the irrigation water salinity ratings for moderately sensitive crops. (Sources from Table 9.2.5 of the ANZEC Guidelines (2000) Volume 3, Chapter 9, Primary Industries)  Sodium adsorption ratio (SAR) of stormwater is anticipated to be low, well below &lt;20. Receiving soils are sandy loam (as described in section 4.1.3), with SAR in irrigation water &gt;20 permissible which will not increase the sodicity of soils (Sources from Table 9.2.6 ANZEC Guidelines (2000) Volume 3, Chapter 9, Primary Industries)</td> </tr> <tr> <td>pH</td> <td>6.5 – 9.5</td> <td>Limit based upon the background surface water quality data<sup>1</sup> and Table 8.2.8 of the ANZECC Guidelines 2000 volume 2 Aquatic ecosystems – rationale and background information</td> </tr> </tbody> </table> <p><sup>1</sup> HLA 2005 report summarising the Beetaloo Basin Surface water quality monitoring completed for Sweetpea Petroleum</p>	Monitoring parameter	Release limit	Limit basis	Electrical conductivity	1,300 µs/cm	Irrigation salinity values used due to the absence of adjacent watercourses, with the protection of soils the most relevant environmental Value (EV). The guideline was based on the irrigation water salinity ratings for moderately sensitive crops. 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The proposed EC limit is underpinned by modelling designed to assess the changing soil salinities and the potential for impact on the receiving vegetation types, including Eucalyptus, Acacia, Melaleuca species and native grasses which are common to the area. Many of these species have been shown to have a moderate to high tolerance to salinity.  The results of the modelling indicates the maximum root zone salinity will be in the order of 1.6 dS/m (for a sandy loam) to 1.7 dS/m (for a clay). This is below the likely vegetation root zone salinity of the vegetation types in the area. 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Given the existing pH of rainwater is approximately 5.2, we believe this to be an appropriate release limit for stormwater.</td> </tr> <tr> <td>Visible hydrocarbons, sheens, foaming or discoloration</td> <td>No visible oil, grease or other hydrocarbons. No visible foams caused by surfactants and detergents. No visible abnormal discoloration.</td> <td></td> </tr> </tbody> </table>	Monitoring parameter	Release limit	Limit basis	Electrical conductivity	1,300 µs/cm	The proposed limit of 1,300 µs/cm was chosen as it aligns with the EC of the Gum Ridge formation (the main source of water used on proposed sites) and the ANZECC short term irrigation guideline value for moderately sensitive crops (Table 9.2.5 of the ANZEC Guidelines (2000) Volume 3, Chapter 9, Primary industries).  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<p><b>Appendix G Erosion and Sediment Control Plan</b></p> <p><b>7.3 ESC Trigger Action Response Plan</b></p> <p>The following Trigger Action Response Plan (TARP) is to be implemented during construction:</p> <p><b>Monitoring Requirements:</b></p> <ul style="list-style-type: none"> <li>Daily visual inspection of access track, lease pads and campsite conditions for duration of civil construction activities.</li> <li>Routine visual inspections of the creek and drainage line access track crossings and the wastewater containment system at the camp weekly or following a rainfall event (i.e. greater than 20 mm in 24 hours).</li> </ul> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>On establishment of each exploration lease pad, undertake jar testing work to determine anticipated settling rate of sediments on site. This will inform flocculent dosing requirements as required.</li> <li>Repair of ESC devices immediately when found not to comply.</li> <li>Where monitoring has indicated weather condition have impacted the integrity of the erosion and sediment controls, operators must adopt one of the treatment plans from section 6.0 to mitigate the impacts of rainfall and ensure that the ESC devices are reinstated as soon as physically practicable after the event.</li> <li>Inspection of all ESC devices across the worksite and physical water quality testing (physical parameters only) at the well pad sediment basin should be conducted prior to discharge of water offsite. Water quality discharge indicators include: <ul style="list-style-type: none"> <li>No visible oil, grease or other hydrocarbons</li> <li>pH: Between 6.0 – 8.0</li> <li>EC: 250 µS/cm.</li> </ul> </li> </ul> <p>The adopted discharge criteria are based on ANZECC 2000 Table 3.3.4 and Table 3.3.5 default trigger values for pH and conductivity (EC, salinity) indicative of slightly disturbed ecosystems in tropical Australia, as well as consideration of the distance and type of nearby sensitive surface water receptors as ephemeral drainage lines and creeks.</p>				<p><b>Appendix G Erosion and Sediment Control Plan</b></p> <p><b>7.3 ESC Trigger Action Response Plan</b></p> <p>The following Trigger Action Response Plan (TARP) is to be implemented during construction:</p> <p><b>Monitoring Requirements:</b></p> <ul style="list-style-type: none"> <li>Daily visual inspection of access track, lease pads and campsite conditions for duration of civil construction activities.</li> <li>Routine visual inspections of the creek and drainage line access track crossings and the wastewater containment system at the camp weekly or following a rainfall event (i.e. greater than 20 mm in 24 hours).</li> </ul> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>On establishment of each exploration lease pad, undertake jar testing work to determine anticipated settling rate of sediments on site. 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No visible abnormal discoloration.</b></li> <li>pH: Between <b>5.2 – 9.0<sup>1</sup></b></li> <li>EC: <b>1,300 µS/cm<sup>2</sup></b></li> </ul> </li> </ul> <p><sup>1</sup> <b>The proposed minimum pH is reflective of observed regional rainfall pH levels, with pH levels of 5.24 observed at Daly Waters on March 20, 2024. Tamboran has observed pH levels on its enclosed tank lids and sediment basins around the pH of 5 level. Given the large volume of rainwater that falls on a site in a very short period, the pH in the sediment basin is anticipated to be low, before increasing as they interact with the receiving soils. This has been observed in sediment basins onsite, with pH increasing from 5.2 to 6.5 over several hours after a rainfall event due to the low buffer capacity of rainwater. 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