Appendix A: Change notice – Regulation 22

Interest holder	Tamboran B2 Pty Ltd	**EMP Title**	Sturt Plateau Compression Facility – Appraisal Gas EP98 and EP117	**Unique EMP ID**	TAM2-3	**Mod #**	1	**Date**	23 January 2025
Brief Description	Amendment of the offsite stormwater release criteria to provide consistency in stormwater discharge criteria across all Tamboran exploration and appraisal well sites.								
Geospatial files included?	N/A								

Does the proposed change result in a new, or increased, or potential or actual environmental impact or risk?	**If an INCREASE in the existing potential or actual environmental risk, is it provided for in the EMP?**	**Does the proposed change require additional mitigation measures to be included?**	**Has additional stakeholder engagement been conducted?**	**Does it require additional environmental performance standards and measurement criteria?**	**Does it affect compliances with Sacred Site Authority Certificates?**	**Does it affect current rehabilitation, weed fire, wastewater, erosion and sediment control, spill or emergency response plans?**	**Will the environmental outcome continue to be achieved, and will the impacts and risks be managed to ALARP and acceptable?**
No. There are no new or increased environmental impacts or risks. The revised discharge EC has been extensively discussed in the EMP and is assessed to have a risk rating that is low 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 C2024-031.	Yes Section 7.3 of the erosion and sediment control plan (Appendix F) has been updated to align with this amendment. All other plans remain valid and appropriate.	Yes. Stormwater monitoring outlined in *Table 54: Environmental outcomes, performance standards and measurement criteria – Inland water environmental quality and aquatic ecosystems*, will be met.

Additional contextual information	

Interest holder	Tamboran B2 Pty Ltd	EMP Title	Sturt Plateau Compression Facility – Appraisal Gas EP98 and EP117	Unique EMP ID	TAM2-3	Mod #	1	Date	23 January 2025

Current EMP text

3.7.23 SPCF stormwater management

Table 14: Stormwater off-site release and dust suppresion re-use limits

Monitoring parameter	Release limit
Electrical conductivity	1,600 µs/cm
pH	5.2 – 9.0
Visible hydrocarbons, sheens, foaming or discolouration	No visible oil, grease or other hydrocarbons No visible foams caused by surfactants and detergents No visible abnormal discoloration

3.7.24 Stormwater limit justification

… The proposed limit of 1,600 µs/cm was chosen as this aligned 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). The Gum Ridge water is used in construction water, dust suppression and is discharged to the sediment basin as a part of the facility hydrotesting (where the water is not practicable to be re-used). Thus, placing a separate limit on the sediment basin for stormwater and hydrotest water would be extremely difficult. …

3.20 Monitoring

Table 29: Monitoring program summary

Monitoring program	Purpose	Monitoring points	Parameters	Frequency	Investigation thresholds	Reference document
Stormwater	Manage stormwater collected during activities	Sediment basin release point	Field EC and pH Visible oil, grease, other hydrocarbons, foams or abnormal discoloration	Weekly during the wet season or per each release during the dry season	Off-site release and dust suppression limits: • pH 5.2 – 9.0 • EC 1600 µs/cm	N/A

Appendix F Erosion and Sediment Control Plan

7.3 ESC Trigger Action Response Plan

The following Trigger Action Response Plan (TARP) is to be implemented during construction:

Monitoring requirements:

- 7-day forecast from Bureau of Meteorology (BOM) to be monitored and construction and ground disturbance activities to planned around the forecast.
- Daily visual inspection of access track, lease pads and campsite conditions for duration of civil construction activities.
- 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).
- Review ESC across the site and where required implement maintenance prior to 1 October each year.

Action:

- On establishment of each exploration well pad, undertake jar testing work to determine anticipated settling rate of sediments on site. This will inform flocculent dosing requirements as required.

Amended EMP text

3.7.23 SPCF stormwater management

Table 14: Stormwater off-site release and dust suppression re-use limits

Monitoring parameter	Release limit
Electrical conductivity	1,300 µs/cm
pH	5.2 – 9.0
Visible hydrocarbons, sheens, foaming or discolouration	No visible oil, grease or other hydrocarbons No visible foams caused by surfactants and detergents No visible abnormal discoloration

3.7.24 Stormwater limit justification

… The proposed limit of 1,300 µs/cm was chosen as this aligned 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). The Gum Ridge water is used in construction water, dust suppression and is discharged to the sediment basin as a part of the facility hydrotesting (where the water is not practicable to be re-used). Thus, placing a separate limit on the sediment basin for stormwater and hydrotest water would be extremely difficult. …

8.5 Monitoring

Table 34: Monitoring program summary

Monitoring program	Purpose	Monitoring points	Parameters	Frequency	Investigation thresholds	Reference document
Stormwater	Manage stormwater collected during activities	Sediment basin release point	Field EC and pH Visible oil, grease, other hydrocarbons, foams or abnormal discoloration	Weekly during the wet season or per each release during the dry season	Off-site release and dust suppression limits: • pH 5.2 – 9.0 • EC 1,300 µs/cm	N/A

Appendix F Erosion and Sediment Control Plan

7.3 ESC Trigger Action Response Plan

The following Trigger Action Response Plan (TARP) is to be implemented during construction:

Monitoring requirements:

- 7-day forecast from Bureau of Meteorology (BOM) to be monitored and construction and ground disturbance activities to planned around the forecast.
- Daily visual inspection of access track, lease pads and campsite conditions for duration of civil construction activities.
- 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).
- Review ESC across the site and where required implement maintenance prior to 1 October each year.

Action:

- On establishment of each exploration well pad, undertake jar testing work to determine anticipated settling rate of sediments on site. This will inform flocculent dosing requirements as required.

Interest holder	Tamboran B2 Pty Ltd	EMP Title	Sturt Plateau Compression Facility – Appraisal Gas EP98 and EP117	Unique EMP ID	TAM2-3	Mod #	1	Date	23 January 2025

Current EMP text	Amended EMP text

• 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.
• 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:
  • No visible oil, grease or other hydrocarbons
  • pH: Between 6.0 – 8.0
  • EC: 1,300 µS/cm.
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.
	• 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.
	• 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:
	  • No visible oil, grease or other hydrocarbons. No visible foams caused by surfactants and detergents. No visible abnormal discoloration.
	  • pH: Between 5.2 – 9.0[1]
	  • EC: 1,300 µS/cm[2].
	[1] *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. Given the existing pH of rainwater is approximately 5.2, we believe this to be an appropriate release limit for stormwater.*
	[2] *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).*
	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. Also, the sodium adsorption ratio (SAR) for the Gum Ridge Formation was calculated at 2, which when combined with the EC values, indicates that the release of stormwater based on the revised release criteria is unlikely to cause soil structural issues.
	The adopted discharge criteria are widely used by Tamboran at its other operational sites on EP 117, EP 98 and EP 76, with no negative effects on soil properties or native vegetation.