Appendix A: Change notice – Regulation 22

Interest holder	Sweetpea Petroleum Pty Ltd	**EMP Title**	Civil and Water Bore Drilling EP 136 Environment Management Plan	**Unique EMP ID**	SWP2-3	**Mod #**	2	**Date**	24 January 2025
Brief Description	a) Amend the erosion and sediment controls described in the EMP, to meet ongoing operational principles and functionality – i.e. retention of vegetation on bunding during intervals of site inactivity to increase site stabilisation. b) Amend the asset protection zone (APZ) definition and operational criteria to align with the BMP (Appendix I), thereby eliminating the need for an additional perimeter APZ. c) Amend the BMP (Appendix I) to incorporate the changes outlined in a) and b), above. d) Amend the ESCP (Appendix K) to align with the release parameters used on other Tamboran sites, which are based on modelling.								
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 through: a) Amendment of the erosion and sediment controls (ESC) to meet ongoing operational principles and functionality. b) Amendment of the APZ definition and operational criteria to align with the BMP.	N/A No increased impact or risk with sufficient controls outlined in the EMP and erosion and sediment control plan (ESCP).	No. Existing mitigation measures are in place covering well construction and operations, erosion and sediment control, and wastewater management.	N/A. Stakeholder engagement is not required.	No. Environmental performance standards within the existing approved EMP are sufficient.	No. Activity covered under the existing AAPA certificate C2020/072.	Yes. Minor edits have been made to the BMP (Appendix I) and ESCP (Appendix K) to incorporate the changes and consistency throughout the EMP. All other plans remain valid and appropriate.	Yes. Environmental performance standards listed in section 7.2.3 of the EMP will be met.

Additional contextual information	The EMP currently outlines ESC and APZ criteria, which lack flexibility based on: a) the discretionary decision-making afforded the Field / Site Manager outlined in the BMP (Appendix I) surrounding vegetation management within the APZ; and b) does not adequately describe site management strategies, which are subject to change based on the level of activity occurring on the site – i.e. fully operation and manned, vs unmanned. The EMP stormwater release criteria currently does not align with other Tamboran site release parameters.

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<table>
<tr><th>Current EMP text</th><th>Amended EMP text</th></tr>
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Table of Definitions and Acronyms

Definitions/Acronyms	Meaning
Well Pad	means the cleared area specific to the individual well pad based on approx. 280 m x 260 m. The well pad is a compacted area that includes flare pit, cellar and sump (nominal 180 m x 180 m) and an external perimeter area of 20 m width to cater for soil stockpiling and a firebreak. An additional 20 m buffer of managed vegetation will be established as an asset protection zone.

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Table of Definitions and Acronyms

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Well Pad	Means the cleared area specific to the individual well pad based on approx. 280 m x 260 m. The well pad is a compacted area that includes flare pit, cellar and sump (nominal 180 m x 180 m) and an external perimeter area of 20 m width to cater for soil stockpiling and a firebreak. An additional 20 m buffer of managed vegetation will be established as an asset protection zone. Vegetation within the asset protection zone (APZ) and on bunds will be managed based on operational / seasonal requirements (e.g. manned vs unmanned; wet season vs dry season) and at the discretion of the Field / Site Manager, as per in the Bushfire Management Plan.

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3.2.1 Exploration Lease Pads

Just off the well pad a water tank pad will be constructed to hold water in tanks used for the future drilling and stimulation activities and to return flowback fluids. Figure 7 shows a conceptual well pad and tank pad layout, noting the layout may vary to accommodate local factors and type of drilling rig used. The cleared area specific to the individual well pad is 280 m x 260 m (72,800 m2). This encompasses the well pad (nominal 180 m x 180 m), which will be compacted, and an external perimeter area of 20 m width to cater for soil stockpiling and a firebreak. An additional 20 m buffer of managed vegetation will be established as an asset protection zone.

…

Fire breaks / fire zone management – comprises a 10 m perimeter cleared around the lease pad, perimeter bund, fencing, a 10 m firebreak that encompasses a 4m fire trail, and a 20 m perimeter functioning as a managed vegetation zone. This area comprises an asset protection zone around infrastructure.

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…

Fire breaks / fire zone management – comprises a 10 m perimeter cleared around the lease pad during operations, perimeter bund, fencing, a 10 m firebreak that encompasses a temporary 4m fire trail, and a 20 m perimeter functioning as a managed vegetation zone. This area comprises an asset protection zone around infrastructure. **NOTE:** Manned sites with active operations (e.g. camps, drilling and stimulation) will require a higher degree of protection compared to unmanned sites. It is at the Field / Site Manager's discretion to ensure APZs are maintained when required, whilst also maximising vegetation re-instatement to increase site stability and decrease the risk of erosion and offsite sediment releases (a key ESCP control). When sites are unmanned and infrastructure is removed, the combined well pad and tank pad surface areas are sufficient buffer to meet APZ criteria, eliminating the need for an additional perimeter APZ.

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3.3 Support Facilities for the Program

3.3.1 Accommodation camp

…

The camp cleared area for both options will be 100 m x 100 m, including the compacted camp pad (nominal 70 m x 70 m) that will be compacted along with an external perimeter area of 20 m width to cater for soil stockpiling and a fire break around the perimeter. An additional asset protection zone 20 m around the perimeter will also be established. …

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The camp cleared area for both options will be 100 m x 100 m, including the compacted camp pad (nominal 70 m x 70 m) that will be compacted along with an external perimeter area of 20 m width to cater for soil stockpiling and a fire break around the perimeter. An additional asset protection zone 20 m around the perimeter may also be

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Current EMP text	Amended EMP text
• Fire breaks / fire management zones - The accommodation camp layout includes: • An allowance of a 10 m perimeter area cleared around the compacted useable site area that includes area for soil/vegetation stockpiling, the perimeter bund and fencing. • An additional 10 m firebreak cleared, encompassing a 4 m fire access trail around the site perimeter. • A 20 m perimeter (not shown on schematics) to function as a managed vegetation zone whereby woody understorey vegetation is removed and maintain grass at less than 100 mm height. This achieves the required 40 m buffer for an asset protection zone (APZ) around infrastructure. Further detail for the fire breaks/fire management zones are presented in Appendix I.	established and managed at the discretion of the Field / Site Manager based on operational / seasonal requirements (e.g. manned vs unmanned; wet season vs dry season). … • Fire breaks / fire management zones - The accommodation camp layout includes: • An allowance of a 10 m perimeter area cleared around the compacted useable site area that includes area for soil/vegetation stockpiling, the perimeter bund and fencing. • An additional 10 m firebreak cleared, encompassing a 4 m fire access trail around the site perimeter. • A 20 m perimeter (not shown on schematics) to function as a managed vegetation zone whereby woody understorey vegetation is managed at the discretion of the Field / Site Manager and based on operational / seasonal site requirements (e.g. manned vs unmanned; wet season vs dry season). This achieves the required 40 m buffer for an asset protection zone (APZ) around infrastructure during manned activities. **NOTE:** Manned sites with active operations (e.g. camps, drilling and stimulation) will require a higher degree of protection compared to unmanned sites. It is at the Field / Site Manager's discretion to ensure APZs are maintained when required, whilst also maximising vegetation re-instatement to increase site stability and decrease the risk of erosion and offsite sediment releases (a key ESCP control). When sites are unmanned and infrastructure is removed, the combined well pad and tank pad surface areas are sufficient buffer to meet APZ criteria, eliminating the need for an additional perimeter APZ. Further detail for the fire breaks/fire management zones are presented in Appendix I.

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Current EMP text

Appendix I Bushfire Management plan

Offsite stakeholders	Contact details	Name
National Response Centre	1800 076 251	24/7 contact line
Emergency	000 or 112 mobile	
Bushfire NT Katherine office (Savanna)	(08) 8973 8876	
Bushfire NT Alice Springs office (Barkly)	(08) 8952 3066	
NAFI North	https://www.firenorth.org.au/nafi3/	
Secure NT (Fire Bans)	https://securent.nt.gov.au/alerts	
Fire incident map	https://www.pfes.nt.gov.au/incidentmap/	

Sweetpea's Exploration Program Fire Management Zones – Bushfire Management Actions	
Well Pads and Tank Pads	• Remove all vegetation within the lease pad area and implement erosion and sediment control plan. • Treat emerging vegetation with herbicide. • On fire ban days or times of higher fire danger, hot works are to be conducted with increased fire protection measures and with approval from the Bushfire Officer. • Open air fires cannot be lit without a permit under the Bushfire Management Act 2016.
Fire management break	• A 10 m wide cleared perimeter around well pads and tank pads. • An additional 10 m wide bare earth fire break incorporating a 4 m wide fire access trail.
Fire access trails	• Create and maintain 4 m wide access trail by grading or spraying.
Asset Protection Zone (APZ)	• Site Manager to assess fuel load prior to camp establishment and again at end of wet season if infrastructure is still in place. • Establish a 20 m low fuel zone around well pads and lease pads. • Monitor for grassy weeds and control where appropriate. • If deemed necessary, conduct controlled burns where other controls are not effective and in consultation with neighbouring properties. • Ensure 4 m wide fire access trail around the perimeter of the asset protection zone is trafficable by fire fighting appliances.
Civil Construction Program	• Adequate fire protection equipment to be provided to prevent fires, the spread of fire, injury to personnel, and to ensure local bushfire and other fire regulations are observed. • Fire extinguishers to be fitted to all vehicles and key locations at camp.
Neighbouring Property Fire Management Zone	• Fire management planning meeting with neighbouring properties prior to commencing civil construction activities, and reviewed annually. • Neighbour to advise proponent of planned burns.

Amended EMP text

The following minor edits have been made to the 9 BMPs:

1. **Offsite stakeholders:** Delete reference to the National Response Centre. This contact is obsolete.

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Civil Construction Program	• Adequate fire protection equipment to be provided to prevent fires, the spread of fire, injury to personnel, and to ensure local bushfire and other fire regulations are observed. • Fire extinguishers to be fitted to all vehicles and key locations at camp.
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Current EMP text	Amended EMP text
Appendix K Erosion and Sediment Control Plan	
5.4 ESC Trigger Action Response Plan … • Action: – 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. – Repair of ESC devices immediately when found not to comply. – 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 3.4 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 lease 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: 250 uS/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. …	**5.4 ESC Trigger Action Response Plan** … • Action: – 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. – Repair of ESC devices immediately when found not to comply. – 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 3.4 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 lease 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 uS/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.* …