

Approval notice and statement of reasons


Petroleum (Environment) Regulations 2016 (NT) (Regulations)

Interest holder	Sweetpea Petroleum Pty Ltd ABN 42 074 750 879
Petroleum interest(s)	Exploration Permit 136 (EP136)
Environment management plan (EMP) title	Seismic Environment Management Plan EP136 – Beetaloo Sub-Basin, NT
EMP document reference	Seismic Environment Management Plan EP136 – Beetaloo Sub-Basin, NT, dated 20 October 2020 (SWP1-04)
DEPWS EMP assessment document reference	NTEPA2019/0124-007~0001
Regulated activity	Two 2D seismic surveys (549.28 km) and a ground gravity survey on EP136, including ancillary activities. Installation of two groundwater monitoring bores (4 in total) on pad sites 1 and 3, including approximately 5 km of access tracks to the sites.
Is the EMP a new plan submitted under reg 6 or a revision of a current plan submitted in accordance with reg 18?	This EMP is a new plan submitted under reg 6. NTEPA2019/0124-011~0005
Was the regulated activity referred ¹ for consideration of whether environmental impact assessment was required?	No
Was an environmental approval ² required and by which assessment method?	N/A
Has an environmental approval ³ been issued for the regulate activity?	N/A
Has an Authority Certificate under the <i>Northern Territory Aboriginal Sacred Sites Act 1989</i> been issued for the regulated activity?	Yes Authority Certificate C2020/072
Date an EMP compliant with reg 8 was first submitted under reg 6	10 August 2020
Date within which the EMP was published for comment under reg 8A, if applicable	N/A
Date further information was required and submitted under reg 10, if applicable	Letter 1: 25 August 2020 required 09 September 2020 submitted Letter 2: 16 September 2020 required 20 October 2020 submitted NTEPA2019/0124-011~0016
Date of resubmission notice under reg 11(2)(b), if applicable	N/A
Date EMP was resubmitted under reg 11(3), if applicable	N/A
Date a notice setting out a proposed timetable for consideration of the EMP was issued under reg 11(2A) if applicable	N/A

¹ This means a referral under the *Environment Protection Act 2019 (NT) (EP Act)* or the *Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)*.

² Ibid.

³ Ibid.

Proposed timetable given in notice under reg 11(2A) if applicable	N/A
Where provided under s29B of the Northern Territory Environment Protection Authority Act 2012 (NT) (NT EPA Act), the dates the Northern Territory Environment Protection Authority (NT EPA) was requested to, and provided, advice on EMP	Date of Minister's request for advice: 25 February 2019 Date of NT EPA Advice: 23 October 2020
Date of decision	2 / 11 / 2020
Decision maker	 Signature Hon Eva Dina Lawler MLA, Minister for Environment

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1. The part of the EMP that relates to activities to take place on EP136 is approved. reg 11(2)(a)
2. The approval is subject to the following conditions: reg 12(2)

Condition 1: The interest holder must submit to Department of Environment, Parks and Water Security (DEPWS):

- i. an updated timetable (including time-bound commitments) for the regulated activity prior to commencement of the activity and each month thereafter
- ii. daily on-site reports indicating the status and progress of the groundwater bore installation and seismic surveys, kilometres of clearing per seismic line; and progressive rehabilitation completed
- iii. a five-day activity forecast for the duration of the activity during the wet season (1 October – 30 April)
- iv. written notification of any halt to the activity due to early onset of the wet season, within 24 hours of the halt, and
- v. immediate notification of any fires potentially threatening the works.

Condition 2: In the event of any accidental release (overflow, failure, spill or leak), to ground of contaminants that exceeds 200 litres, the interest holder must provide a written report to DEPWS Petroleum Operations within 24 hours of the incident being detected. The report must include:

- i. details of the incident specifying material facts, actions taken to avoid or mitigate environmental harm
- ii. the corrective actions taken including the volume and depth of impacted soil removed for appropriate disposal if required, and
- iii. any corrective actions proposed to be taken to prevent recurrence of an incident of a similar nature.

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Condition 3: The interest holder must provide an annual report to DEPWS on its environmental performance, in accordance with item 11 (1)(b) in schedule 1 of the Petroleum (Environment) Regulations 2016. The first report must cover the 12 month period from the date of the approval, and be provided within three calendar months of the end of the reporting period. The annual environment performance report must align with the template prepared by DEPWS for this purpose and must include a signed declaration by the interest holder.

Condition 4: The rehabilitation plan forms part of the EMP. The interest holder must provide a status update to DEPWS, concurrent with submission of the annual environment performance report. The status update must include:

- i. auditable success criteria for rehabilitation and corrective actions in the event rehabilitation monitoring shows success criteria are not achieved,
- ii. an annual summary of progressive rehabilitation outcomes, and
- iii. be accompanied by geospatial files of all surface disturbance areas, including those under rehabilitation.

Condition 5: For the avoidance of doubt, the interest holder must not undertake any regulated activity described in this EMP on land outside of EP136.

2 Material considered

1. The following material has been taken into account in making this decision:
 - a. Seismic EMP EP136 – Beetaloo Sub-Basin, NT EMP, dated 20 October 2020.
 - b. The principles of ecologically sustainable development referenced in the *Environment Protection Act 2019* (NT).
 - c. The NT EPA advice provided at my request under s29B of the NT EPA Act.
 - d. The Authority Certificate issued under the *Northern Territory Aboriginal Sacred Sites Act 1989* and associated response provided by the Aboriginal Areas Protection Authority.
 - e. The Code of Practice: Onshore Petroleum Activities in the Northern Territory (Code) as defined in reg 4A.

3 Statement of reasons

1. The EMP meets the approval criterion in reg 9(1)(a), because it contains all the information required by Schedule 1 of the Regulations. reg 9(1)(a)
2. The EMP meets the approval criterion in reg 9(1)(b) for the following reasons: reg 9(1)(b)
 - a. The nature of the regulated activity is as follows:
 - i. 2D seismic and a (passive) ground gravity survey commencing in late 2020 for a maximum period of 70 days, across two distinct areas (north and south) of EP136. The total kilometres (km) for the program across the two survey areas is 549.28 km/278.65 hectares (ha).
 - ii. The estimates breakdown of the seismic program is north: 14 seismic lines, total length 480 km (242 ha); south: 2 seismic lines, total length 69 km (37 ha).
 - iii. Construction and operation of two temporary camps (north and south).
 - iv. Installation of four groundwater monitoring bores at pad sites 1 and 3, in proximity to seismic lines 8 and 9 in the northern section of EP136.
 - v. The northern survey extends into neighbouring exploration permit areas EP76, EP161 and EP(A)354 and across two perpetual pastoral leases – Tanumbirini Station (NT Portion (Por) 701) and Beetaloo Station (NT Por 702). The southern survey extends into neighbouring exploration permit area EP169 and across two perpetual leases Anthony Lagoon Station (NT Por 3861) and Eva Downs Station (NT Por 244).
 - vi. Extension of the regulated activity into neighbouring EPs and perpetual pastoral leases is subject to an Access Authority, managed by the Department of Industry, Tourism and Trade (DITT) in accordance with section 57A of the *Petroleum Act 1984*.

I have imposed a condition requiring that the interest holder may only undertake the regulated activity within the boundary of EP136.
 - b. The scale of the regulated activity is as follows:
 - i. The seismic survey program involves total land clearing of up to 67 ha (279 km) of native vegetation along a maximum 5 m wide track. The estimated land clearing equates to 24% of the total seismic surveys in both areas (including campsites).

- ii. The breakdown of land clearing across the two survey areas is: northern survey area 242 km²/65 ha (27%); and southern survey area 37 km²/2 ha (4.85%).
 - iii. The breakdown of estimated water usage is groundwater – 565 kL; and potable water – 65 kL.
 - iv. Estimated diesel usage is 130 – 150 kL.
 - v. Peak traffic movements for the regulated activity is 30 – 40 per day, particularly during mobilisation and demobilisation.
 - vi. The interest holder has estimated greenhouse gas emissions of approximately 4715 tonnes carbon dioxide equivalent (tCO₂-e), comprising approximately 4311 tCO₂-e from land clearing and 403 tCO₂-e from diesel combustion.
 - vii. A progressive rehabilitation plan (Appendix F) has been developed for the activity, to minimise the risk of site erosion and return the disturbed land to the original conditions long term, in accordance with clause A.3.5 of the Code. Progressive rehabilitation along seismic lines will occur immediately after with the completion of the seismic survey along each line. Overall land clearing and subsequent rehabilitation efforts will be minimised by using existing pastoral/access tracks and existing cleared areas for the two campsites and total approximately 72 ha.
- c. The EMP contains an appropriate level of detail for the nature and scale of the activities proposed. The regulated activity is clearly described. The description of the existing environment is informed by adequate field surveys and desktop assessments. Uncertainty relating to environmental data is clearly stated. The identification of environmental impacts and risks is comprehensive and contains a sufficient level of detail to inform the assessment. The EMP provides detail on environmental outcomes and performance standards, implementation strategy, personnel, emergency response plan, stakeholder engagement, legislative requirements, recording, monitoring, reporting and notifications, to an appropriate level of quality and applicability.
- d. Having regard to the above, the information in the EMP is appropriate for the nature and scale of the regulated activity to which it relates.
3. The EMP meets the approval criterion in reg 9(1)(c) for the following reasons: reg 9(1)(c)
- a. In making my decision, I have considered reg 5A, which requires that I give fundamental consideration to the principles of ecologically sustainable development (ESD), including the decision-making principle (s18 *Environment Protection Act 2019*), as follows:
 - i. The regulated activity is small scale and of short duration (up to 3 months) and forms one component of a broader onshore petroleum exploration program in the region. The regulated activity will inform decision-making about longer-term petroleum activities.
 - ii. This EMP does not involve drilling and hydraulic fracturing; however the public was made aware that the EMP was under assessment via the DEPWS website.
 - iii. I believe the information regarding the proposed regulated activity adequately provides the best available evidence in the circumstances that is relevant and reliable to the decision-making process.

- b. In making my decision, I have considered reg 5A, which requires that I give fundamental consideration to the principles of ESD, including the precautionary principle (s19 *Environment Protection Act 2019*) as follows:
- i. The interest holder has adopted mitigation controls to manage risks such as erosion due to wet season operations or early onset of the wet season, including halting activities and stabilising disturbed areas.
 - ii. I have imposed two conditions requiring that the interest holder submit daily progress reports on the status of the activity, including five-day activity forecasts for the duration of the seismic program during the wet season (1 October – 30 April); and temporarily halting seismic surveys immediately in the event of Bureau of Meteorology forecasting the early onset of the wet season.
 - iii. The precautionary principle has been considered in assessing the regulated activity. The regulated activity does not pose a threat of serious or irreversible environmental damage.
- c. In making my decision, I have considered reg 5A, which requires that I give fundamental consideration to the principles of ESD, including the principle of evidence-based decision-making (s20 *Environment Protection Act 2019*) as follows:
- i. The EMP adequately assesses the environmental impacts and risks associated with the regulated activity and outlines appropriate avoidance and mitigation measures.
 - ii. The interest holder has undertaken stakeholder engagement with landholders and land managers, traditional owners and the Northern Land Council (NLC) and has consulted with NT Government agencies, in accordance with reg 7 and reg 9.
 - iii. The interest holder intends to use existing access tracks for proposed seismic lines and access to proposed lines minimising clearing to approximately 24% (67 ha) of the total surface area of the activity. The two campsites will also be sited on existing cleared areas.
 - iv. An Erosion and Sediment Control Plan (ESCP) predicated on avoiding environmentally sensitive areas such as creek crossings has been included in the EMP (Appendix J).
 - v. A Bushfire Management Plan (BMP) has been included in the EMP (Appendix E). The BMP incorporates mitigation controls used by other petroleum companies who have undertaken seismic surveys in the Barkly Region during this time of the year.
 - vi. The EMP identifies a number of spill mitigations including portable bunding; containment of hydrocarbons in double-lined diesel storage tanks; and spill prevention and response procedures for hazardous spill prevention, monitoring, assessment, response and clean-up.
 - vii. I have imposed a condition requiring that the interest holder must report, in writing, any spill incidents that exceed 200 litres within 24 hours of the incident being detected.
 - viii. A Traffic Impact Assessment (Appendix K), including traffic flow and composition have been assessed to be negligible, with the worst case scenario within the capacity of the Carpentaria Highway and Barkly Stock Route. The interest holder has considered additional mitigations controls and

- guidance for single lane access, which has been assessed by the Department of Infrastructure, Planning and Logistics (DIPL).
- ix. The EMP has undergone review and assessment by NT Government agencies. Feedback from NT Government agencies was forwarded to the interest holder and has been adequately addressed, including amendments to the EMP.
 - x. I believe the information regarding the proposed regulated activity adequately provides the best available evidence in the circumstances that is relevant and reliable to the decision-making process.
- d. In making my decision, I have considered reg 5A, which requires that I give fundamental consideration to the principles of ESD, including the principle of intergenerational and intra-generational equity (s21 *Environment Protection Act 2019*) as follows:
- i. The environmental burdens of the regulated activity will not disproportionately affect particular stakeholders. The greenhouse gas (GHG) emissions from the activity is approximately 4715 tCO₂-e, generated from land clearing and diesel combustion. This is approximately 0.03% of the 2018-19 NT estimated GHG emissions.⁴
 - ii. I consider that cumulative emissions are not significant when considered in context of 2018-19 NT and Australian emissions, which were approximately 16.0 million tonnes and 537.4 million tonnes respectively.
 - iii. Cultural values relating to sacred sites will be protected through the application of Authority Certificates issued to the interest holder under the *Northern Territory Aboriginal Sacred Sites Act 1989* and measures for reporting on discovery of archaeological sites during activities.
 - iv. The EMP commits the interest holder to progressive rehabilitation throughout the life of the activity which, combined with the Code requirements, is considered to have reduced the risk of soil erosion to a level that is as low as reasonably practical and acceptable.
 - v. Interactions between the regulated activity and pastoral operations have been assessed; the interest holder is committed to regular engagement with pastoralists on the progress of activities.
 - vi. Accordingly, I do not believe that the carrying out of the regulated activity in accordance with the EMP would have an effect contrary to the principle of inter or intra-generational equity.
- e. In making my decision, I have considered reg 5A, which requires that I give fundamental consideration to the principles of ESD, including sustainable use (s22 *Environment Protection Act 2019*) of natural resources as follows:
- i. I note the findings of the Scientific Inquiry into Hydraulic Fracturing (HFI) in the NT that states: "... in the short to medium term, the Australian National Energy Market is likely to require higher levels of flexible, gas-fired generation, which can provide a reliable, low emissions substitute for ageing coal-fired generation, and essential security services to complement variable renewable electricity generation."⁵
 - ii. I also note the NT Government's commitment to implementing all the recommendations of the HFI, including seeking to ensure that there is no net

⁴ Source: DISER 2020. State Greenhouse Gas Inventory. <https://ageis.climatechange.gov.au/SGGI.aspx>.

⁵ Refer section 9.7.4 of the [Scientific Inquiry into Hydraulic Fracturing in the Northern Territory](#); p 233.

- increase in life cycle GHG emitted in Australia from any onshore petroleum produced in the NT.
- iii. Estimated water usage is 630 kL, well under the 5 ML per year extraction licence threshold. No additional groundwater extraction licences are currently required for the regulated activity. Any future consideration of groundwater use will include an application for an extraction licence.
 - iv. The interest holder has also assessed the cumulative impacts of future groundwater use (between 77 and 208 ML/annum), which should not adversely affect current and/or projected consumptive use up to a maximum of 20% of the sustainable yield from the Gum Ridge Formation.
 - v. Accordingly, I am satisfied that the concept of sustainable use of natural resources has been taken into account.
- f. In making my decision, I have considered reg 5A, which requires that I give fundamental consideration to the principles of ESD, including the conservation of biological diversity and ecological integrity (s23 *Environment Protection Act 2019*) as follows:
- i. I believe the information I have regarding the existing biodiversity and ecosystems that are to be affected by the regulated activity, the effects that are likely, and the mitigation measures reasonably available, is sufficient.
 - ii. The Land Condition Assessment (Appendix A) has been informed by two separate field surveys in November 2019 and May 2020 (Appendix A). These surveys are supplemented by field assessments, detailed desktop analysis and anecdotal evidence.
 - iii. No threatened vegetation communities were listed or likely to occur within the northern or southern seismic survey areas.
 - iv. Several areas of conservation significance occur within the vicinity of the proposed seismic survey areas. The closest is Eva Downs Swamp approximately 15 km south of the southern seismic lines. Other areas of conservation significance include Bullwaddy Conservation Reserve 20 km to the west of EP136 in the northern survey area; Lake Woods approximately 140 km south-east of the southern seismic survey area on Newcastle Waters Station; and Tarrabool Lake approximately 50 km south-east of the southern seismic line.
 - v. The EMP identifies 21 fauna species listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and/or the *Territory Parks and Wildlife Conservation Act 1976* (TPWC Act). An assessment of the likelihood of occurrence indicates five listed threatened species that are likely to occur based on habitat suitability and previous records. These include the Gouldian Finch *Erythrura gouldiae* (Endangered EPBC Act, Vulnerable TPWC Act); Grey Falcon *Falco hypoleucos* (Vulnerable TPWC Act); Crested Shrike-tit (northern) *Falcunculus frontatus whitei* (Vulnerable EPBC Act, Near Threatened TPWC Act); Painted Honey Eater *Grantiella picta* (Vulnerable EPBC Act, Vulnerable TPWC Act); and Yellow-spotted Monitor *Varanus panoptes* (Vulnerable TPWC Act).
 - vi. The EMP also identifies an additional 14 migratory and marine bird species either likely (four) or possibly (10) occurring in the area.
 - vii. The DEPWS Flora and Fauna Division is satisfied that the regulated activity does not pose a significant risk to threatened species, important habitats or significant vegetation types. Mitigation controls identified in the EMP are adequate to reduce risks associated with vehicle strike, dust, erosion and/or

spills to as low as reasonably practicable, in relation to potential impacts on biodiversity. This includes clearing for the activity avoiding riparian vegetation and additional disturbance to watercourses, and avoiding larger trees with trunk diameters greater than 25 cm at 1.3 m above the ground to minimise disturbance to potential nesting trees. Further, the interest holder has committed to providing geospatial files of surface disturbance to DEPWS before, during and after line preparation/recording, and then at intervals of 6 months, 1 year and 2 years.

- viii. The EMP outlines measures to minimise impacts on affected environmental values, including the management of threatening processes such as weeds and fire. Where relevant, management measures for the threatening process are consistent with the requirements of the Code, NT Land Clearing Guidelines and Weed Management Planning Guideline: Onshore Petroleum Projects. Specific examples of mitigation controls include training for all personnel on the use of protective equipment and bushfire awareness; daily inspections of all machinery and vehicles for any trapped vegetation that may cause a spark or ignite a fire; ensuring the proposed vehicle and machinery wash-down, inspection is undertaken regularly along seismic lines to reduce the spread of weeds.
 - ix. The conservation of biological diversity and ecological integrity is vital to the achievement of ecologically sustainable development. Given the fundamental nature of this consideration, I have given central importance to the conservation of biodiversity and ecological integrity in weighing whether I am satisfied the approval criterion in reg 9(1)(c) has been met.
 - x. If carried out in accordance with the EMP, the risks of the regulated activity to the conservation of biological diversity are considered to be mitigated to an acceptable level.
- g. In making my decision, I have considered reg 5A, which requires that I give fundamental consideration to the principles of ESD, including the promotion of improved valuation, pricing and incentive mechanisms (s24 *Environment Protection Act 2019*) as follows:
- i. In accordance with the 'polluter pays principle':
 - a) The interest holder has committed to the remediation of impacts of the regulated activity, as is set out in the EMP.
 - b) If the interest holder fails to remediate the impacts, an environmental rehabilitation bond has been provided by the interest holder, which is considered to be adequate to cover the resulting costs.
 - c) As with any business undertaken in the NT, the interest holder is required to pay full life cycle costs for goods and services used.
 - ii. The EMP does not identify any new environmental problems. I do not believe that the carrying out of the regulated activity in accordance with the EMP would have an effect contrary to the principle of improved valuation, pricing and incentive mechanisms.
- h. The NT EPA did not require the EMP to be referred under the *Environment Protection Act 2019*, as the regulated activity does not have the potential to cause a significant impact on the environment. reg 9(3)
- i. The NT EPA has provided the following in relation to the regulated activity and the EMP:

- i. In accordance with my request under s29B of the NT EPA Act, the NT EPA reviewed the EMP for the regulated activity against the approval criteria in regulations 9(1)(b), 9(1)(c) and 9(2)(a) of the Regulations and other matters the NT EPA considered relevant, and has provided advice about the EMP. Relevantly:
 - a) The NT EPA recommended that should the EMP be approved, it be subject to four conditions. The NT EPA's recommendations have informed the conditions of this approval. All conditions are outlined in section 1(2) of this Approval Notice.
 - b) The NT EPA concluded that the EMP for the regulated activity, subject to the recommended approval conditions, is appropriate for the nature and scale of the regulated activity; and demonstrates that it can be carried out in a manner that environmental impacts and environmental risks of the activity will be reduced to a level that is as low as reasonably practical and acceptable.
- ii. I have considered the NT EPA's advice and recommendations and these have been incorporated where relevant into the comments in this statement of reasons and the conditions in the Approval Notice.
- j. The existing environment along with its particular values and sensitivities is appropriately identified in Section 4, Appendix A and B of the EMP, and to the extent I do not agree or there is some uncertainty, I have imposed conditions to address the relevant risk or risks. reg 9(1)(c)
- k. I agree with the risk assessment set out in Section 6, 7 and Appendix C of the EMP, and to the extent I do not agree I have imposed a condition or conditions to address the relevant risk or risks.
- l. The interest holder's risk assessment is applicable to activities in all seasons and the outcomes are reflected in the EMP that includes a weed management plan; bushfire management plan; waste and wastewater management plan; rehabilitation management plan; emergency response plan; stakeholder engagement protocols; spill management plan; erosion and sediment control plan; and traffic impact statement. The EMP also includes the required elements for the ongoing management of erosion and sediments in accordance with the erosion and sediment control plan. This is consistent with the requirements of the Code that allows for the regulated activities to occur in the wet season months when contingency planning is provided.
- m. The anticipated environmental impacts are appropriately identified in Section 7 and Appendix C of the EMP. The regulated activity is new and cumulative impacts have been identified and assessed to the extent possible. In EMPs for subsequent stages (if they proceed) the interest holder will need to continue to address cumulative effects.
- n. The EMP demonstrates how the interest holder will comply with relevant requirements of the Code in undertaking these regulated activities. This includes reference to applicable Australian and international standards that have been adopted for regulated activities, as applicable. The EMP cross references relevant sections of the Code that apply to the mitigation and management measures to enable the reviewer to identify and confirm that the proposed activities comply with the Code, as applicable. The EMP provides water management commitments and management plans that meet the requirements of the Code.
- o. I am satisfied that the interest holder has conducted ongoing stakeholder engagement in accordance with the Regulations. The EMP provides details of

stakeholder engagement that meets Regulation 7 and Schedule 1, Clause 9 of the Regulations (Section 5 and Appendix G). Stakeholder engagement records demonstrate that issues raised about the environmental impacts of the proposed activity have been assessed and taken into consideration by the interest holder. The EMP provides a communication log (Appendix G) that provides details of written feedback and input from stakeholders as part of the stakeholder engagement records. The risk assessment in the EMP details the potential environmental impacts of the activity and proposed environmental outcomes to manage impacts on social and cultural surroundings.

- p. I recognise the importance the community places on the protection of water, human health management of chemicals and waste, stakeholder engagement, social impacts and regulation and compliance. The EMP appropriately identifies the risks and potential impacts from the regulated activities and commits to mitigation and management measures to address these risks and potential impacts.
- q. There are no environmental impacts or environmental risks relating to the proposed regulated activities that I consider to be unacceptable.
- r. Overall, having regard to the above, I am satisfied that the EMP demonstrates that the regulated activity is to be carried out in manner by which the environmental impacts and environmental risks are reduced to a level that is:
 - i. as low as reasonably practicable; and
 - ii. acceptable.