

Public record pursuant to s. 39 of the *Environmental Protection Act 1986*

Proposal title: Lake MacLeod Solar Salt Project Expansion

Proposal description: Lake MacLeod Pty Ltd proposes to expand the existing solar salt operations at Lake MacLeod (Shire of Carnarvon). The expansion is to increase production from approximately 1.5 Mtpa to 4 Mtpa by 2027, and will include:

- Total disturbance area of 387.1 ha
- Construction of additional salt crystalliser ponds
- Relocation of the northern flood levee
- Two borrow pits for sourcing construction material.

Proposal location: Lake MacLeod, 50 km north of Carnarvon, Shire of Carnarvon

APP number: APP-0033266

Date referral received: 22 December 2025

Date more information received: 11 March 2026

Referrer: Australian Marine Conservation Society

Proponent: Lake MacLeod Pty Ltd

Potential significant effects:

There are potential impacts on: **flora and vegetation** from the clearing of 43 ha of native vegetation; **terrestrial fauna** from the clearing of habitat; **inland waters** from disturbance to lake surface and from brine abstraction; and **social surroundings** from restriction of Traditional Owner access.

Environmental factors: flora and vegetation, terrestrial fauna, inland waters, social surroundings.

Public comment on referral information:

Does the proposal need further assessment due to its potential significant impacts?

Yes 25 No 0

If the proposal requires further assessment, should the EPA include further opportunities for public review?

Yes 25 No 0

Total submissions:

25

Decision: s. 38G(1) – Not assess – Public advice given

Summary of reasons pursuant to s. 38G(1)(c)

The EPA considers the likely environmental effects of the proposal are not so significant or unmitigated to warrant formal assessment under Part IV of the EP Act. In reaching this view, the EPA had particular regard to the protection of key environmental values of Lake MacLeod, including inland waters associated with the ‘northern ponds’, as well as flora and vegetation, terrestrial fauna, and social surroundings. The EPA considers that the potential impacts of the proposal are localised and can be appropriately managed through existing statutory decision-

making processes, including under Part V of the EP Act, the *Rights in Water and Irrigation Act 1914*, and the *Aboriginal Heritage Act 1972*.

The EPA recognises the high environmental value of the 'northern ponds', including their eligibility for Ramsar listing, and acknowledges public concern regarding their protection. In considering the scale of the referred expansion and its separation from the 'northern ponds', the EPA considers the referred proposal is unlikely to result in a significant impact to these values. The EPA has provided public advice to support the ongoing protection of the 'northern ponds', including recommendations relating to potential tenure rationalisation, consideration of conservation estate inclusion, and the development of a coordinated long-term management framework for Lake MacLeod.

The EPA's specific considerations in deciding not to assess the proposal include:

- The proposal will result in the clearing of no more than 43 ha of native vegetation in predominantly poor and degraded condition, which is not considered to be consistent with a Priority Ecological Community (PEC) or Threatened Ecological Community (TEC). No Threatened or Priority Flora were recorded. The vegetation clearing is not expected to reduce vegetation quantity or quality in the area to the extent that it may affect ecological functioning or diversity, due to the extent and type of vegetation remaining.
- The EPA considers that the potential impacts of the proposal on flora and vegetation values can be appropriately regulated through the operation of a native vegetation clearing permit (NVCP) under Part V Division 2 (Clearing) of the EP Act.
- No significant vertebrate fauna was recorded within the development envelope. All recorded fauna habitats were well-represented surrounding the development envelope. The EPA considers that the potential impacts of the proposal on terrestrial fauna habitat values can be appropriately regulated through the operation of a native vegetation clearing permit (NVCP) under Part V Division 2 (Clearing) of the EP Act.
- The proposal area is unlikely to represent important habitat for migratory shorebirds given that surface water occurs in the area in response to occasional and infrequent large rainfall events. In the context of a significant inundation event, the proposal would result in the loss of up to 900 ha of potential shorebird habitat, including the area disturbed for the crystalliser ponds and the area hydrologically isolated as a result of the flood levee, representing 0.05% of the total lake surface. High value migratory shorebird habitat associated with the permanent saline wetlands of the 'northern ponds' is not expected to be adversely impacted given that this area is some 38 km north of the proposal area.
- The solar salt operation occurs within Lake MacLeod, which is listed within the Directory of Important Wetlands in Australia. The proposal would result in direct impacts which are proportionately small in comparison to the 188,145 ha lake, with crystalliser ponds disturbing up to 338.7 ha of lake surface, contained within an area of up to 900 ha (0.05% of total lake surface) hydrologically isolated by flood levee relocation.

- The existing Lake Macleod Operation has previously resulted in disturbance to 7,467 ha of the lake surface. The cumulative impact of the existing operation and proposal to the surface of Lake MacLeod and potential shorebird habitat is therefore 7,805.7 ha (4.1% of the total lake surface).
- The EPA acknowledges that Lake MacLeod contains two permanent water bodies, collectively referred to as the 'northern ponds', which were proposed for listing as a Wetland of International Importance under the Ramsar Convention in 2005. Potential impacts to surface water quality are expected to be restricted to the immediate proposal area encapsulated by the flood levee, located approximately 38 km south of the 'northern ponds'. The EPA notes that the broader hydraulic gradient across the lake results in surface water and groundwater moving from north to south, reflecting the persistent inflow of seawater at the 'northern ponds'. The proposal is not considered likely to result in a significant impact to surface water quality within the 'northern ponds' given the episodic nature of hydrological connectivity and dilution during flood events.
- The abstraction of brine for salt production is considered to be of low risk to the 'northern ponds' at the proposed increased rate of 20.6 GL/a, noting that previous studies indicated that there was a low risk to the 'northern ponds' at a theoretical extraction rate of 40 GL/a (i.e. ~ 94% higher than proposed).
- The abstraction of brackish artesian groundwater from the Carnarvon-Birdrong aquifer is not expected to increase as a result of the proposal and will remain below the currently licensed limit of up to 3.35 GL/yr under the *Rights in Water and Irrigation Act 1914* (RiWI Act). Potential impacts from continued brackish groundwater abstraction can be regulated under the RiWI Act.
- Potential impacts associated with emissions and discharges, such as bitterns seepage and waste management, can be regulated through the existing statutory mechanisms under Part V Division 3 of the EP Act (works approval and licence).
- Dust and noise emissions are unlikely to be significant, with sensitive receptors located 10 km away or further from operations.
- Significant impacts to Aboriginal cultural heritage are not expected given there are no registered or lodged Aboriginal cultural heritage places within the development envelope and a Heritage Agreement has been negotiated between the proponent and the relevant native title party (Nganhurra Thanardi Garrbu Aboriginal Corporation [the NTGAC]). The EPA notes that an Archaeological Work Area Clearance Assessment, undertaken in collaboration with NTGAC Traditional Owner participants in 2025, did not identify any heritage values within the proposed areas of disturbance.
- The EPA does not consider that the proposal impacts will combine or interact in a holistic way which requires assessment by the EPA.

Taking into account decision-making processes under Part V Division 2 of the EP Act

- The proponent has submitted an application to the Department of Mines, Petroleum and Exploration (DMPE) for a permit to clear vegetation under Part V Division 2 (Clearing) of the EP Act. DMPE has statutory delegated authority to administer clearing permit provisions within mining tenure.

- The impacts associated with the clearing of native vegetation, including direct impacts on fauna habitat can be assessed through this process.
- In granting a clearing permit, DMPE has the ability to impose conditions to prevent, control, abate or mitigate environmental harm as a result of a proposal. Offset requirements can also be included in the conditions.

Taking into account decision-making processes under Part V Division 3 of the EP Act

- The Lake MacLeod Operation operates under a licence issued by the Department of Water and Environmental Regulation (DWER) under Part V of the EP Act (L7178/1997/11). The proponent submitted a licence amendment application on 30 May 2025 for the expansion which forms the proposal, which is currently under assessment.
- This process provides for the regulation of prescribed premises by conditioning:
 - Limits on quality and quantity of emissions and discharges.
 - Stormwater contamination controls.
 - Waste handling, storage and processing.
 - Incident response.
 - Controls on seepage to groundwater.

Taking into account decision-making processes under the Rights in Water and Irrigation Act 1914

- The proposed expansion does not involve an increase in abstraction of brackish artesian groundwater used for general operations, rather than salt production.
- The proponent currently holds a groundwater licence under the RiWI Act (GWL56934) for the abstraction of brackish artesian groundwater from the Carnarvon-Birdrong aquifer. This licence permits the abstraction of up to 3.35 GL/a.
- The groundwater licence conditions compliance with a Non-saline Water Operating Strategy Management Plan which includes reporting and monitoring of water quality and water levels.
- The EPA recognises that the extraction of brine from trenches for the purposes of salt production is not subject to regulation under the RiWI Act.

Taking into account decision-making processes under the Aboriginal Heritage Act 1972 (AH Act)

- The EPA considers the proponent has taken reasonable steps to consult with the Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC), the representative body for the Yinggarda and Baiyungu People. A Heritage Agreement has been negotiated between the proponent and NTGAC and executed in September 2025.
- No direct impacts to registered Aboriginal heritage sites or values are expected from the proposal. The EPA is satisfied that the processes provided for under the AH Act can mitigate any potential direct impacts to registered Aboriginal heritage sites to be consistent with the EPA objectives.

Public advice

The EPA acknowledges the broader concerns raised in the third-party referral and during the 7-day public comment period in relation to the protection and ongoing management of the significant environmental values of the 'northern ponds' of Lake MacLeod. The EPA recognises that public concerns stem from a perceived risk of incremental expansion of the project to an extent that may impact the 'northern ponds' area. The EPA considers that this perception is likely exacerbated by the mining lease boundary, State Agreement boundary and Part V licence boundary corresponding with the entirety of Lake MacLeod, including the 'northern ponds'. The EPA also acknowledges public submissions identifying the lack of provisions in the State Agreement relating to environmental management or protection.

In the context of the above, the EPA publishes the following public advice for the benefit of other decision-making authorities to ensure that their statutory decision-making processes achieve and assure environmental outcomes consistent with the EPA's environmental factor objectives:

- The EPA understands that the Department of Energy and Economic Diversification (DEED) is currently considering a variation to the *Evaporites (Lake MacLeod) Agreement Act 1967* (the State Agreement) in relation to potential future operations. The EPA recommends that this process incorporate appropriate protections for the key environmental values associated with the 'northern ponds' area of Lake MacLeod, eligible for listing as a Wetland of International Importance under the Ramsar Convention in 2005. To provide the public assurance that 'northern ponds' area would be excluded from any potential future operations, the EPA recommends that consideration be given to rationalising the State Agreement boundary and associated mining tenure under the *Mining Act 1978* to remove the 'northern ponds' along with a suitable buffer area to support the ongoing protection and management of the related environmental values.
- Subject to realisation of the above recommendation, the EPA advises that the 'northern ponds' be considered for inclusion into the State conservation estate, to be managed by the Department of Biodiversity, Conservation and Attractions under the *Conservation and Land Management Act 1984*. This would facilitate the development and implementation of appropriate management arrangements and, in due course, support renewed progression towards Ramsar listing.
- The EPA advises DEED that any proposals for future expansion should be supported by updated hydrological information. The EPA advises DEED that any proposals for future expansion that may have a significant effect on the environment should be referred to the EPA under Part IV of the EP Act for further consideration.

The EPA publishes the following public advice about the state of the environment in the proposal area for the benefit of Government, the proponent and the community:

- Building on the work completed in the *Draft Management Plan for the Proposed Listing of a Wetland of International Importance at Lake MacLeod* (2006), the EPA recommends that the proponent, in consultation with Government, undertake the

development of a proactive management framework for the long-term environmental stewardship of Lake MacLeod.

- The EPA notes that any future expansion or activities outside the scope of this referral have not been considered and may be subject to separate referral, assessment and decision-making under the EP Act and other applicable legislation.

Material information considered by the EPA in this decision

The EPA has considered the following material information in making its decision:

- Referral of the proposal under s38 of the EP Act (22 December 2025)
- Environmental Review Document (March 2025) and appendices:
 - Appendix 1: Legislative Context
 - Appendix 2: Proposal Content Document
 - Appendix 3: Other Environmental Factors or Matters
 - Appendix 4: Stakeholder Engagement Register
 - Appendix 5.1: Reconnaissance Flora & Vegetation Survey/Basic Vertebrate Fauna Survey (Onshore Environmental, 2025)
 - Appendix 5.2: Short-Range Endemic (SRE) Invertebrate Desktop Assessment (Bennelongia, 2025)
 - Appendix 5.3: Aquatic Assessment of Lake MacLeod 2011 (Outback Ecology, 2011)
 - Appendix 5.4: Extract of Hydrological Expansion Pre-Feasibility Study (GRM, 2014)
 - Appendix 5.5: Lake MacLeod Closure Plan (Leichhardt, 2025)
- Advice from DWER on its statutory decision-making roles and processes under Part V Division of the EP Act.
- Advice from DWER's Midwest Gascoyne Region in relation to the Hydrological Expansion Pre-Feasibility Study (GRM, 2014)
- Advice from DEED in relation to the application of the *Evaporites (Lake MacLeod) Agreement Act 1967* (the State Agreement)
- Comments received during the 7-day public comment period
- Additional information from the proponent in relation to historical, current and proposed brine extraction rates, future expansion plans, and existing management framework for Lake MacLeod (16 April 2026)
- EP Act s3, s4, Part IV, EIA Practice Guide 2025, EPA factor and technical guidance.

Appeals: There are no rights of appeal under the EP Act in respect of this decision.



Darren Walsh

Chair

Delegate of the Environmental Protection Authority

Date: 31 May 2026