Northern Territory
Environment Protection Authority

NOTICE OF DECISION AND STATEMENT OF REASONS

Section 55 of the *Environment Protection Act 2019* (EP Act)
Regulations 57(2)(b) and 63 of the Environment Protection Regulations 2020 (EP Regulations)

Proposed action name	Finniss Lithium Project BP33 Underground Mine Proposed Variations
Proponent name	Lithium Development (Grants) Northern Territory Pty Ltd
NT EPA reference	EP2026/051
Nature of proposed action	Mining
Description of proposed action	The proposed action is located at two adjacent mine sites, Grants Lithium Project ('Grants') and the Finniss Lithium Project BP33 Underground Mine ('BP33') on the Cox Peninsula, approximately 33 km west of the Berry Springs townsite in the Northern Territory in the Unincorporated (Cox-Daly) Local Government Area. The proposed action is to: • increase the depth of BP33 underground mine by 530 m from 320 m to 850 metres below ground level • extend the life of mine from 4 years to 12 years • increase the total mined ore from 2.1 to 10.1 million tonnes • modify and utilise the Grants open-cut and processing facility as a centralised ore processing, waste handling and water storage hub (with the same extended life of mine to service the BP33 operation) • install a paste plant and underground paste backfill system at BP33 and re-enforced pipeline to transport required slimes slurry (<45µm size fraction) from Grants to the BP33 paste plant.
Person authorised to make decision	Dr Paul Vogel AM, Chairperson Northern Territory Environment Protection Authority (NT EPA) Delegate of the NT EPA under section 36 of the Northern Territory *Environment Protection Authority Act 2012*
Decision	**Standard environmental impact assessment is required** in accordance with section 55 of the EP Act and regulation 57(2)(b)(i) of the EP Regulations The method of environmental impact assessment to be by **supplementary environmental report** in accordance with regulation 57(2)(b)(ii)
Signature	
Date of decision	14 July 2026

Matters considered under EP Regulation 56	The NT EPA has considered the following: • the accepted referral (including the referral form, referral report and appendices) • submissions received in relation to the referral.
Consultation	Submission period: • 15 May 2026 to 12 June 2026 Submissions received: • 8 government authority submissions • 4 public submissions Submissions are available on the NT EPA website. Key issues raised in the submissions received by the NT EPA include: • insufficient information to accurately determine the significance of impacts to hydrological processes, inland water environmental quality, and terrestrial ecosystems from dewatering operations • insufficient information on the geochemistry of the ore, waste rock, tailings and paste backfill to determine the short and long-term impacts on surface and groundwater quality • uncertainty regarding the management, storage, reuse, disposal and material balance accuracy of ore, waste rock and other waste streams generated considering the life of mine extension to 12 years • insufficient information and data to determine the potential for acid or metalliferous drainage from the handling and storage of waste rock e.g. in waste rock dumps or underground as backfill • insufficient information and uncertainty to a high degree regarding aquifer parameters, the magnitude, extent and duration of groundwater drawdown, and the hydraulic connectivity between the shallow, intermediate and deeper aquifers • uncertainty about the potential impacts of long-term groundwater drawdown and risks to ecological (e.g. groundwater dependent ecosystems) and cultural values • insufficient information about the potential cumulative impacts of the proposed action and the nearby Lei Lithium Project • concerns about impacts of increased traffic and heavy vehicles on the condition and maintenance of the Cox Peninsula Road including road safety • concerns that the stakeholder engagement and consultation undertaken is sufficient to ensure that affected communities and individuals understand the proposed action and its potential impacts.

Statement of Reasons

Overview

The proposed action is described in the referral submitted to the NT EPA. The referral also includes constructing and operating an 8.8 km slimes slurry pipeline between Grants and BP33 mine sites. The proponent advised the NT EPA during the consultation period on the referral of a change to no longer construct and operate the 8.8 km slimes slurry pipeline between Grants and BP33 mine sites, and instead treat dry stack tails ('processing rejects') using a crusher directly associated with the proposed BP33 paste plant, noting that removal of the slimes pipeline from the overall operating system removes the requirement to transport slimes slurry overland between the mine sites. The proponent concluded that the change reduces environmental disturbance, risk, energy usage, and related emissions associated the pipeline and is a "non-significant" change to the proposed action. The written correspondence is published on the NT EPA environmental impact assessment register.

The NT EPA considers that although the removal of the pipeline de-risks environmental aspects of the proposal, in the entirety of the proposed action, the potential for significant impact on the environment remains. The NT EPA considers that the proposed action has the potential to have a significant impact on environmental values associated with five environmental factors as outlined below. The NT EPA recognises the proposed action is located immediately adjacent to the Lei Lithium Project proposed by Lithium Plus Minerals Ltd (which is being assessed under the EP Act by supplementary environmental report method).

Land	**<u>Terrestrial ecosystems</u>** There is potential for significant impacts on terrestrial ecosystems including to identified groundwater dependent ecosystems (i.e. wet monsoon vine thicket, riparian vegetation, and mangroves) and habitat through groundwater extraction and drawdown. The potential significant impact to terrestrial ecosystems is increased directly and indirectly by the proposed action to deepen the underground mine by 500 m and extension to the life of mine, and cumulatively when considering the proposal to develop the nearby Lei Lithium Project. There remains a high degree of uncertainty regarding monitoring, conceptualising and modelling the groundwater system and groundwater flows including the connectivity between deep, intermediate and shallow aquifers. Improvements to the modelling is required to demonstrate that ecological water requirements would be maintained.
Water	**<u>Hydrological Processes</u>** The proposed action has the potential to directly and indirectly alter groundwater levels, gradients and flow paths within and beyond the mine lease. The cone of depression and water level drawdown caused by dewatering the intermediate and deeper levels of the mine could extend to intersect known groundwater dependent ecosystems particularly during the dry season. There is potential for significant impact on hydrological processes (including cumulatively) when considering the proposal to develop the nearby Lei Lithium Project due to: • the extension of underground mining to approximately 850 m below ground level • the proposed operational period being extended from 4 to 12-years.

	• the requirement for long-term dewatering and depressurisation of the underground workings. The extent of impact from the proposed action on hydrological processes is uncertain and the ability to protect the hydrological regimes of surface water and groundwater is uncertain.
	Inland Water Environmental Quality The proposed action would introduce substantial volumes of paste backfill produced from processing waste streams and waste rock backfill into the underground mine over the 12-year life of mine. There is uncertainty about potential environmental impacts from the processing, transfer, storage, use, reuse and disposal of mining waste and mine affected water. Development of a robust integrated waste and water balance and associated management is required. Surface water quality may be affected by uncontrolled and controlled releases, seepage, spills, and sediment-laden runoff into the Charlotte River catchment receiving environment including for a substantially longer operational period than previously approved. The proposed action has the potential to significantly impact inland water environmental quality.
Air	**Atmospheric Processes** The proposed action would rely on diesel for power generation, to run the mining fleet for haulage, and to run ventilation and cooling systems. The proposed action's total scope 1 emissions estimated is to be 1,508,369 tCO_2-e for the life of the mine, which exceeds the 100,000 tonnes CO_2-e /year threshold. The proposed action would also generate Scope 3 emissions associated with fuel and energy-related activities, transport, purchased goods and services, and downstream processing of spodumene concentrate. There is insufficient information to assess the significance of impacts from the proposed action on atmospheric processes, primarily due to the uncertainty that all reasonable and practicable measures can be taken to reduce emissions, and whether residual emissions are consistent with the NT EPA objective for this factor i.e. to minimise greenhouse gas emissions and contribute to the Northern Territory Government's goal of achieving net zero greenhouse gas emissions by 2050.
People	**Community and Economy** The proposed action identifies that haulage of ore and processing rejects would be at an estimated rate of 30 to 35 return road trains/day between BP33 and Grants along a 3.5 km section of Cox Peninsula Road. Additional vehicle movements associated with transporting construction and operational personnel, machinery and equipment to the sites would also occur along public roads. The previous assessment of the BP33 mine was for heavy vehicle haulage to utilise a constructed haul road connecting BP33 and Grants. Community engagement undertaken by the proponent and public submissions on the referral identified road safety as a key area of interest and concern. The proposed action has the potential to significantly impact community and economy through the increase in heavy vehicle traffic (mainly along the Cox Peninsula Road) affecting public road safety and amenity. The extended duration of the proposed action means that potential road safety, amenity and social and economic impacts would be recurring during and beyond the life of mine and the

	extent of impact from the proposed action on the community and economy is uncertain.

The NT EPA considered other environmental factors during its consideration of the referral; however, the impact on those factors was not considered to be significant.

Justification

A standard assessment by supplementary environmental report is required because:

Regulation 59 (a) — the significance of the potential impact of the proposed action as described above.

Regulation 59 (b) — the need to improve the NT EPA's level of confidence in predicting potential significant impacts of the proposed action taking into account the extent and currency of existing knowledge, particularly in relation to:

- the significance of impacts, including cumulative impacts, on surrounding communities from the proposed action
- the significance of impacts on groundwater dependent ecosystems, habitat, surface water quality, and groundwater quality resulting from dewatering activities
- certainty that paste backfill and waste rock characterisation and geochemical studies are adequate to assess the suitability of proposed waste rock management systems, proposed backfill and associated potential impacts
- confidence that all reasonable and practicable measures have been applied to reduce greenhouse gas emissions

Regulation 59 (c) — the need to develop measures to avoid, mitigate or manage potential significant impacts, and increase the NT EPA's confidence in the effectiveness of the proposed measures, with respect to:

- potential impacts on groundwater dependent ecosystems, surface and groundwater quality.
- potential impacts on surrounding communities
- the duration, magnitude and extent of aquifer drawdown from mine dewatering and groundwater extraction, including cumulatively
- the potential for acid, metalliferous and saline drainage from the waste rock landforms, ore stockpiling areas and other mine infrastructure
- groundwater recharge and rebound and the potential impacts resulting from long term groundwater contact with backfill material.
- scope 1 emissions reductions

Regulation 59 (d) & (e) — the extent of community engagement that has occurred, and whether it is sufficient to ensure that affected communities, and individuals understand the proposed action and its potential impacts, including cumulative impacts.

Conclusion

The NT EPA considers that the proposed action (and notified changes) has potential for significant impacts on five environmental factors. Environmental impact assessment is required, and further

information is required to enable the NT EPA to complete its assessment. The method of assessment is supplementary environmental report.

In making its decision under section 55 of the EP Act and regulation 57 of the EP Regulations, the NT EPA has considered the:

- accepted referral and submissions made under regulations 52 and 53
- objects under section 3 of the EP Act
- purpose of the environmental impact assessment process in section 42 of the EP Act
- general duty of proponents in section 43 of the EP Act
- matters in regulation 56 of the EP Regulations
- criteria in regulation 59 of the EP Regulations.