

Notice of Decision and Statement of Reasons

EP2020/001 FINNISS LITHIUM PROJECT BP33 UNDERGROUND MINE CORE LITHIUM LIMITED

Regulation 57(2) and regulation 63 of the *Environment Protection Regulations 2020*

Overview

Proposal: Finnis Lithium Project BP33
Underground Mine

Proponent: Core Lithium Limited

Reference Number: EP2020/001

Date referral accepted: 9 July 2020

Industry sector: Mining

Region: Cox Peninsula

Decision under regulation 57(2)(b)(i):

Standard assessment required

Decision under regulation 57(2)(b)(ii):

Method of environmental impact assessment:
Supplementary Environmental Report (reg5(1)(b))

Proposed action

Proposed action: to develop and operate an underground lithium mine at the BP33 resource on the Cox Peninsula, 33 km west of Berry Springs on vacant Crown land (Section 1 Hundred of Parsons and Section 2746 Hundred of Hughes) including to: truck ore to a processing plant via a proposed new 7.5 km haul road, construct and operate a raw water supply pipeline (underground) between Observation Hill Dam to the mine site, establish and use a groundwater borefield if feasible. The production of ore is estimated to be 2.09 million tonnes (at 1.42% lithium oxide) over a four year life of mine. The proposed action would operate under two Mineral Leases, ML 32074 and ML(A) 32346.

Matters considered under regulation 56

1. [Accepted referral](#) – including the referral form, referral supporting document and appendices
2. Submissions received in relation to the referral information:

Public submissions: 2 (one from a non-government organisation; one from a private individual)

Government authorities: 8 (compiled advice received from eight government authorities)

Statement of Reasons

Potential significant environmental impacts: The NT EPA identified that the proposed action has the potential to significantly impact the following environmental factors and associated environmental values:

Land

- **Terrestrial environmental quality** – soil quality may be significantly impacted by vegetation clearing; loss of containment of hydrocarbons or other chemicals; generation of acid metalliferous or saline drainage; and seepage from waste rock storage.
- **Terrestrial ecosystems** – threatened flora may be significantly impacted by vegetation clearing; and the viability of sensitive and significant vegetation may be significantly impacted through alteration of surface water flows.

Water

- **Hydrological processes** – the surface hydrology of downstream ephemeral waterways may be significantly impacted by altered surface water flows, and altered groundwater hydrology of the Charlotte River sub-catchment.
- **Inland water environmental quality** – the proposal has the potential to act as a contaminant source and significantly impact downstream surface water quality; and the water quality of the underlying aquifer.

People

- **Communities and economy** – the proposal has the potential to significantly impact the regional community, including the Aboriginal community. Potential benefits include contribution to the economy, and training and employment for 125 – 150 people.

Other factors: The NT EPA considered the importance of other environmental factors during its consideration of the referral; however, the impact on those factors was not identified as potentially significant.

Justification

An assessment by Supplementary Environmental Report is required, in line with regulation 59, due to:

- Regulation 59 (a) the significance of the potential impacts of the proposal identified above
- Regulation 59 (b) the need to improve the NT EPA's level of confidence in the prediction of potential significant impacts of the proposal taking into account the extent and currency of existing knowledge, in relation to:
- certainty that the quality of groundwater and surface water resources would be protected from mine related impacts
 - certainty that waste rock characterisation studies are adequate to assess the suitability of proposed waste rock management systems and associated potential impacts
 - assurance that an adequate water balance has been developed, including quantification of the amount of water required to be taken from, and returned to, the hydrological system
 - confidence that the waste management hierarchy has been considered in the dewatering strategy, and wastewater discharge would only occur when specific flow and water quality criteria are satisfied through monitoring and testing
 - information about social impacts that may arise through engagement and consultation with communities that may be affected by the proposal, including Aboriginal communities
- Regulation 59 (c) the need for further development of measures to avoid, mitigate or manage potential significant impacts, to increase the NT EPA's confidence in the effectiveness of the measures, with respect to:
- soil erosion of disturbed areas and waste rock landforms during operations and closure, and subsequent sedimentation in the receiving environment
 - the handling, storage and transport of hazardous materials to prevent soil contamination
 - clearing of potential threatened flora habitat; and how riparian vegetation may be affected by changes in water availability
 - the duration, magnitude and extent of aquifer drawdown from mine dewatering and groundwater extraction
 - management of offsite wastewater discharges to receiving waters with ephemeral and variable flows
 - the potential for acid, metalliferous and saline drainage from the waste rock landforms, ore stockpiling areas and other mine infrastructure
 - mine site water management and downstream water quality impacts
- Regulation 59 (d) & (e) the limited extent of community engagement that has occurred in relation to the proposal, and therefore, the capacity for communities to access and understand information about the proposal. This includes that any negative social and economic impacts would be avoided and that benefits would be maximised.

In summary, the NT EPA considers that the proposal has the potential for significant impacts on multiple environmental factors and objectives, and that further information, adequate characterisation and assessment is required. Additional information is also required to address sections 3, 26, 27, 42 and 43 of the EP Act.

Decision

The referral, supporting documents and submissions have been examined by the NT EPA. This notice of decision is made in accordance with regulation 65 of the EP Regulations.

In line with regulation 57(2)(b) of the EP Regulations, and taking into account the matters required by regulation 56 and the criteria listed in regulation 59, the NT EPA has determined that the referral requires a standard assessment with the required method of assessment to be by Supplementary Environmental Report. In making this decision the NT EPA has considered:

- the objects of the Act in section 3 of the EP Act
- the purposes of the environmental impact assessment process in section 42 of the EP Act
- the matters relevant to a consideration of the method of environmental impact assessment in regulation 59 of the EP Regulations.



DR PAUL VOGEL AM MAICD
CHAIRPERSON
NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY
14 SEPTEMBER 2020