


## 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)

<b>Proposed action name</b>	Lei Lithium Project
<b>Proponent name</b>	Lithium Plus Minerals Ltd
<b>NT EPA reference</b>	EP2024/038
<b>Nature of proposed action</b>	Mining
<b>Description of proposed action</b>	<p>Lithium Plus Minerals Ltd is proposing to develop an underground mine, located approximately 30 km south of Darwin, on the Cox Peninsula. The Lei Lithium Project is located on parcel 2746 hundred of Hughes within the Cox-Daly unincorporated local government area (Mineral Lease Application 33874). The underlying land tenure is vacant crown land.</p> <p>The proposed action is:</p> <ul style="list-style-type: none"> <li>to mine approximately 3.10 million tonnes (Mt) of spodumene ore via underground mining methods to an approximate depth of 700 m below surface</li> <li>to crush and screen mined ore on site to produce direct shipping ore and transport it via truck to Darwin Port for export</li> <li>to temporarily store waste rock at the surface before being used to backfill the box-cut and underground</li> <li>to construct ancillary infrastructure including a power station, access roads and internal haul roads</li> <li>a water management system to meet construction demand (300 ML for the initial 6 months) and operational demand (282 ML/ per year) comprising three water dams and a sediment dam. (Water supply will be a combination of 180 ML of clean runoff, 120 ML of mine affected runoff, which includes dewatering (groundwater extraction) from the underground and box cut, and additional groundwater in the dry season when there is a shortfall of water. Potable water will be trucked to site)</li> <li>wastewater discharge and passive overflows of clean water from the raw water dam</li> <li>to clear 100 ha of native vegetation.</li> </ul> <p>The life of mine is approximately 7 years from construction to rehabilitation and closure. The proponent estimates a required workforce of 60 personnel during construction and between 80 and 100 personnel during operations.</p>
<b>Person authorised to make decision</b>	<p>Dr Paul Vogel AM, Chairperson</p> <p>Northern Territory Environment Protection Authority (NT EPA)</p> <p>Delegate of the NT EPA under section 36 of the Northern Territory <i>Environment Protection Authority Act 2012</i></p>

<b>Decision</b>	<p><b>Standard environmental impact assessment is required</b> in accordance with section 55 of the EP Act and regulation 57(2)(b)(i) of the EP Regulations</p> <p>The method of environmental impact assessment to be by <b>supplementary environmental report</b> in accordance with regulation 57(2)(b)(ii)</p>
<b>Signature</b>	
<b>Date of decision</b>	5 February 2025
<b>Matters considered under EP Regulation 56</b>	<p>The NT EPA has considered the following:</p> <ul style="list-style-type: none"><li>• the accepted referral (including the referral form, referral report and appendices)</li><li>• submissions received in relation to the referral</li></ul>
<b>Consultation</b>	<p>Submission period 6 December 2024 – 8 January 2025</p> <p>Submissions received:</p> <ul style="list-style-type: none"><li>• government authority submissions: 6</li><li>• public submissions: 2</li></ul> <p>Submissions are available on the NT EPA website.</p> <p>Public and government authority submissions identified potential impacts, including cumulative impacts, and risks to hydrological processes, and community and economy.</p> <p>The Australian Department of Climate Change, Energy, the Environment and Water noted that the proposed action likely intersects with a known occurrence of matters protected under the <a href="#">Environment Protection and Biodiversity Conservation Act 1999</a> (EPBC Act). The submission received from the Flora and Fauna Division of the Department of Lands, Planning and Environment supported the significant impact assessments carried out by the proponent and agreed that the proposed action is unlikely to have a significant impact on those species.</p> <p>The referral indicates that the proponent has engaged a consultant to undertake community and stakeholder consultation with various stakeholder groups including, but not limited to, local government, relevant indigenous groups, NT Government departments, non-government organisations and local community, services and businesses (refer to section 3 of the referral report for further detail).</p> <p>The proponent has identified that issues raised during the initial consultation process (June – August 2024) include local employment, road safety (including traffic and road condition and maintenance), water use, and dust and noise. Submissions raised concerns about the level of consultation undertaken to date and whether all potentially affected stakeholders have been sufficiently consulted.</p>

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## Statement of Reasons

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### Overview

The NT EPA considers that the proposed action has the potential to have a significant impact on environmental values associated with five environmental factors<sup>1</sup> as outlined below.

<b>Land</b>	<p><b><u>Terrestrial ecosystems</u></b></p> <p><b>Groundwater drawdown</b></p> <p>There is potential for significant impacts on terrestrial ecosystems directly, and cumulatively, through groundwater extraction for the proposed action and nearby projects (including, but not limited to, Grants Lithium Project and BP33 underground mine). Groundwater drawdown has the potential to impact on groundwater dependent ecosystems (including wet monsoon vine thicket, riparian vegetation, and mangroves) within the zone of influence, and subsequent impacts on threatened species.</p>
<b>Water</b>	<p><b><u>Hydrological processes and Inland water environmental quality</u></b></p> <p><b>Groundwater drawdown</b></p> <p>There is potential for significant impacts on hydrological processes directly, and cumulatively, through groundwater extraction for the proposed action and nearby projects (including, but not limited to, Grants Lithium Project and BP33 underground mine). Groundwater drawdown has the potential to impact on:</p> <ul style="list-style-type: none"><li>• surface and groundwater quality from saline intrusion and oxidation of subsurface acid sulfate soils within the zone of influence</li><li>• the hydrology of the Charlotte River, which is within 500 m of the box cut.</li></ul> <p>The extent of impact from the proposed action on hydrological processes is uncertain and the ability to meet the NT EPA’s factor objective for hydrological processes is uncertain.</p> <p><b>Waste rock and ore stockpiles</b></p> <p>There is potential for significant impacts on hydrological processes directly, and cumulatively, through seepage and run off from waste rock and ore stockpiles. Seepage and run off from the waste rock and ore stockpiles has the potential to impact on:</p> <ul style="list-style-type: none"><li>• surface water quality from the fate of metals, metalloids (particularly arsenic) and nutrients present in the groundwater and geology of the area</li><li>• groundwater quality from the fate of metals and metalloids present in the geology of the area</li><li>• the ecological health of the Charlotte River from the migration of mine impacted water through the shallow alluvial aquifer.</li></ul>

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<sup>1</sup> [NT EPA Environmental factors and objectives](#)

People

**Community and economy**

There is potential for significant impact on local and regional community and economic values from:

- an additional 30 heavy vehicle movements per day
- additional vehicle movements associated with transporting construction and operational personnel, to and from the site per day
- ore haulage through Berry Springs in the immediate vicinity of the Berry Springs Primary School, the Territory Wildlife Park and the Berry Springs Nature Reserve
- the proximity of the proposal to existing mining and mineral exploration operations
- the proximity of the proposal and potential for cumulative impacts on communities including Wagait, Belyuen, Dundee, Bynoe and Berry Springs.

The extent of impact from the proposed action on the community and economy is uncertain and the ability to meet the NT EPA's factor objective for community and economy is uncertain.

**Culture and Heritage**

There is potential for significant impact on archaeological, heritage and Aboriginal sacred sites within the proposed area of disturbance, including the zone of influence.

The extent of impact from the proposed action of culture and heritage values is uncertain and the ability to meet the NT EPA's factor objective for culture and heritage 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.

The referral states that the estimated workforce during construction will be 60 people. Between 80 and 100 personnel are expected to be employed during operations. Additional potential benefits include support to local businesses.

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**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
- significance of impacts on groundwater dependent ecosystems, surface and groundwater quality and the hydrology of the Charlotte River resulting from dewatering activities
- the significance of impacts on archaeological, heritage and sacred sites within the area of disturbance and zone of influence from dewatering activities

- 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 and the hydrology of the Charlotte River
  - potential impacts on surrounding communities
  - closure and rehabilitation of the mine site

Regulation 59 (d) & (e) the extent (or lack thereof) of community engagement that has occurred in relation to the potential significant impacts of the proposed action. Including, but not limited to, the cumulative impacts on communities serviced by roads within the preferred haulage route, and potential interactions between heavy and light mine vehicles and local and recreational vehicles accessing surrounding communities.

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## **Conclusion**

The NT EPA considers that the proposed action has potential for significant impacts on five environmental factors, and that environmental impact assessment is required. 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 regulation 52 and 53 (regulation 56 of the EP Regulations)
- the objects of the Act (section 3 of the EP Act)
- the purpose of the environmental impact assessment process (section 42 of the EP Act)
- the general duty of proponents (section 43 of the EP Act)
- the matters under regulation 56 of the EP Regulations
- the matters relevant to a consideration of the method of environmental impact assessment in regulation 59 of the EP Regulations.