



NT Environment Protection Authority
GPO Box 3675
Darwin NT 0801

10th August 2020

Submitted online via the NT EPA Consultation portal

Dear NT EPA Assessment Team,

Re: NTEPA Referral - Finniss Lithium Project BP33 Underground Mine

The Environment Centre NT (ECNT) is the peak community sector environment organisation in the Northern Territory, Australia raising awareness amongst community, government, business and industry about environmental issues and assisting people to reduce their environmental impact and supporting community members to participate in decision making processes and action. ECNT welcomes the opportunity to comment on the NTEPA Referral for the Finniss Lithium Project BP33 Underground Mine (BP33).

We would firstly like to acknowledge the ongoing consultation that was undertaken by the proponent in respect to our organisation in providing a briefing and willingness to answer our questions. We also welcome the intention that the BP33 project proposes backfilling of the waste rock material. We raise our concerns regarding the characterisation of potentially acid forming (PAF) material below.

Secondly, we wish to raise our concerns that the development of Lithium resources on the Cox Peninsular by Core Lithium Limited (Core Lithium) is being undertaken in a piecemeal manner. This makes it difficult to assess cumulative impacts, particularly regarding drawdown of groundwater from the Burrell Creek Formation, wastewater discharge and impacts on the community from increased industrial vehicle movements. Previous approval of the Grants Lithium Project and its variation gives a sense of inevitability that the BP33 project will also be approved and that the level of assessment applied for BP33 may be reduced. We believe that if Core Lithium presented the full extent of the plans for Lithium extraction on the Cox Peninsular, identifying the need for an open mine pit, processing facility, underground mine with the subsequent impacts on land clearing, waste water discharge and ground water extraction, there would be increased community interest and engagement in the various projects. The changing aspects of the development of lithium by Core Lithium are difficult to keep up with and it is also relevant that the development of lithium in this area is estimated to be beyond seven years.

We wish to make the following main points regarding the proposed BP33 project:

Level of assessment

We strongly urge this project to be assessed at the level and under the methodology of an 'Environmental Impact Statement' (EIS). We believe there is significant information and detail missing that prohibits us from fully assessing and commenting on the impacts of this project. We request the opportunity to provide comments on Terms of Reference (ToR) for an EIS and to be able to comment on the information provided under the EIS process. An underground mine has the potential to impact significantly on the NT Environment

and given the community interest in this project and its vicinity to Darwin, there needs to be highest level of assessment applied to this project.

It is concerning that under the Supplementary Environmental Report (SER) methodology, the proponent merely needs to respond to the limited comments we can provide here in the referral (noting the comments page is only 500 words) and is not required to provide the level of detail required under the EIS process. We highlight the following areas of utmost concern:

Groundwater

The impacts on groundwater cannot be assessed from this referral. We believe that there is a risk this project will have significant impacts on groundwater. Groundwater extraction is addressed on Page 41 of the referral, where it is stated “the volumes of water extracted from each source will depend on how much water can be harvested and captured for reuse. The site groundwater model (once developed in late 2020) will increase the certainty of predicted volumes available for reuse and in turn will inform the requirement for supplementary groundwater extraction”. The groundwater modelling must form part of an EIS for BP33. As previously highlighted in the Grants Lithium EIS, the NT water allocation planning framework states: "In the event that current and/ or projected consumptive use exceeds the threshold levels of 80 per cent of the consumptive pool for aquifers, or groundwater discharges to groundwater dependent ecosystems are impacted, new groundwater Licences will not be granted unless supported by directly related scientific research into groundwater dependent ecosystem/cultural requirements."

This referral offers no figures on groundwater requirements and we are unable to assess the cumulative impacts of the groundwater requirements of BP33 and the Grants Lithium Project. This referral does not address the NT water allocation framework and certainly does not offer scientific research to support any use beyond the ‘allocated’ 20% water extraction limit. It is also stated that “riparian vegetation to changes in groundwater levels is difficult to predict”. Thus, even more vital for there to be scientific research detailing the level and impact of groundwater extraction.

Despite the Burrell Creek Groundwater aquifer having no connection to the Berry Springs Dolostone aquifer, the use of precious groundwater resources and the role of water allocation standards is very much in the forefront of community concerns. It is vital the community gets to assess and comment on the impacts of BP33 on groundwater extraction, including cumulative impacts, via an EIS process, which would include ToR.

Surface Water

It is unsatisfactory that it is stated in the table on page 40 of supporting referral document that there will be no impact on surface water and yet there will be a “decrease flows in the downstream ephemeral creek by 20-30%” which flows in Charlotte River”. This creek is clearly being impacted and potentially sacrificed for the project. This referral highlights that there is a potential for cumulative impacts with altered surface water flows. We question whether simply monitoring and measuring the flows and habitat condition of the West Arm and Charlotte River catchments once the various Core Lithium projects are underway, with a condition to report and manage, is an adequate way to address this risk. We are not satisfied with the assumptions applied to surface water in this referral, to conclude that there is no impact on surface water.

Waste Rock - Potentially Acid Forming (PAF), Zinc, Arsenic

This referral clearly identifies that there is “evidence that fresh phyllite may include PAF material” (page 21) with further testing “to quantify the likely volume of PAF material”. “Fresh rock may also contain water leachable arsenic and zinc”, with naturally occurring radioactive material (NORM) detected in samples. It is imperative that the characteristics of the waste rock is fully researched and presented for comment and scrutiny in an EIS. It is also imperative that the impact of NORM on the surrounding environment, not only on human health, be researched and presented.

Threatened Species

We need to see the results and methodology of field survey June/July 2020 for threatened plant *Styloidium ensatum* to make comment and identify the risk to this species.

A fauna survey threatened species must be undertaken in the project areas. This was not undertaken for the Grants project under the assumption that “there are many areas of suitable habitat for these species throughout the Cox Peninsula, and the quality of that habitat within the project area is similar to that elsewhere in the region”. The Cox Peninsular attracts many local and tourist visitors all year round, with much of the land regularly accessed, thus there are potentially few undisturbed areas for threatened fauna. There needs to be detailed surveys of threatened fauna in the Project area for us to comment on potential impacts.

Community Consultation

We note that in the Grants Lithium Project that the Belyuen Community was not consulted, due to ‘stakeholders being unavailable’. Thus the impact on current traditional activities has not been determined. This referral does not indicate consultation with the Belyuen community has occurred. This could be a significant stakeholder that has not been consulted and given the expanded time frame of mining and processing in their vicinity the communities ability to comment on this project is another reason for BP33 to be assessed at the highest level of an EIS.

Renewable Energy

We note that Core Lithium has become a member of the European Battery Alliance (EBA250), an organisation committed to driving a sustainable battery industry. Given the EU’s commitment to the Paris Agreement and the attention they are giving to the full life cycle carbon emissions of their products and the extra length of Core’s projects, renewable energy must be considered for this project.

Economics of the projects

This referral highlights the severe impact on land and soils in the event of early closure of BP33, particularly the “increased risk of erosion as landforms (i.e. boxcut, remaining WRD) will not be stabilised or rehabilitated”. We also note Core Lithium has received a conditional loan from the NT Government. The proponent should provide details of the economic viability of mining lithium over the next 10 years, addressing worldwide supply trends and the risk of new material being used in future batteries, reducing the demand for lithium.

We look forward to providing comments to a Terms of Reference in anticipation this project is assessed under the methodology of an EIS.

Yours Sincerely

A handwritten signature in black ink, appearing to read 'Shar Molloy', with a large, stylized flourish at the end.

Shar Molloy
Director