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## **Ammaroo Ammonium Phosphate EPA Referral – Draft Terms of Reference**

### **Executive Summary**

1. Verdant Minerals Ltd (**Verdant**) referred a proposed significant variation to the Northern Territory Environment Protection Authority (**NT EPA**) in relation to the Ammaroo Ammonium Phosphate Fertiliser Project (**the Project**).
2. The Project was referred under s. 52 of the *Environment Protection Act 2019* (NT) (**EP Act**) as a significant variation of the currently approved phosphate mine. On 3 May 2023, the NTEPA determined the Project must be assessed at the highest level of assessment, being Tier 3 Assessment by Environment Impact Statement (**EIS**).
3. The Arid Lands Environment Centre (**ALEC**) is Central Australia's peak environmental organisation, working to protect arid lands, creatures and communities. ALEC supports and applauds the NTEPA's decision that the Project must be assessed by way of an EIS.
4. The NTEPA have now sought public comment on the Draft Terms of Reference (**TOR**) for the EIS.
5. Overall, ALEC submits the Draft TOR addresses many of the issues raised by ALEC in its submission to the Project's EPA Referral. However, ALEC submits the Draft TOR can still be improved and makes particular recommendations.
6. In section 2.4.2 ALEC fundamentally opposes the proposal to quantify the significance of proposal impacts using the latest draft of the Western Davenport Water Allocation Plan, the latest draft of the Northern Territory Water Allocation Planning Framework (NTWAPF) and relevant guideline thresholds. We expand upon the reasons for these concerns in 17.

### **Section 2.2 – Proposal description**

7. *Subsection 2.2.1* – The proposal description should also include details of the transport routes to such a remote site, with respect to ingress of supplies, ingress and egress of workers, and egress of products. An analysis should be included of how the proponent's use of such transport routes will affect other uses including the conditions and maintenance of these routes. Among the constraints that may impact approval or implementation, the proponent must also consider their location and activity with regard to the provision of emergency services and their contribution to make this important aspect of occupational health safety viable.

8. *Subsection 2.2.2* – In their background information, the proponent must provide evidence of their capacity to manage and operate an industrial facility, especially one in a very remote location.
9. *Subsection 2.2.3* – Within the rational and justification of the proposal and its social context, the proponent must include a thorough documentation of the benefits and costs for local First Nations' communities.
10. *Subsection 2.2.4* - In reference to the applicable statutory framework, the proponent should ensure details have been included for authorisations required under both NT and Commonwealth. In addition to the examples included in the Draft TOR, the proponent must also include reference to authorisations required under the *Sacred Sites Act 1989* (NT) as well as the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and the Commonwealth Safeguard Mechanism under the *National Greenhouse and Energy Reporting Act 2007* (Cth).
11. *Subsection 2.2.5* – A more comprehensive list of transport routes and affected corridors should be included (for example, the Stuart Highway, on site airfield).
12. *Subsection 2.2.6* – Under the Operation column, in relation to chemical and waste storage facilities details of the operation should also include: i) dust control and ii) atmospheric emissions controls. In relation to the adequacy and likely effectiveness of mitigation measures and controls for all operational environmental management aspects, this subpoint should be expanded to include *potential groundwater contamination*. Under the Ammonium Phosphate Fertiliser Production, material storage and management column, the description should be amended to read: location, extent and nearby sensitive environment (*including biota, especially plants, and soils*). In relation to the Workforce column, this section should be expanded to include *onsite and offsite emergency services available*.
13. *Subsection 2.2.7* – details on long-term groundwater monitoring should be included in this subsection.

#### **Section 2.4 – Information requirements for environmental factors**

14. Air Quality -
  - a. The Environmental Objective should be expanded to read: Protect air quality and minimise emissions and their impact so that environmental values *including ecological health, land uses and the welfare and amenity of people* are maintained. This amendment is consistent with the environmental objective for hydrological processes.
  - b. *Subsection 2.4.3* – Under the section 'Potential impacts and risks,' reference to the impacts from emissions on local air quality and sensitive receptors, including potential incremental impacts on culturally significant sites should be expanded to also include reference to "*susceptible plants and soils*" and "pictographs".
15. Atmospheric Processes –
  - a. The Environmental Objective should be expanded to include reference to the Commonwealth Safeguard Mechanism.

- b. *Subsection 2.4.4* - ‘Relevant activities’ should be expanded to include reference to fugitive emissions (methane, ammonia, and other air pollutants – e.g. acid vapours).

16. Terrestrial ecosystems –

- a. *Subsection 2.4.1* – Under ‘Potential impacts and risks’ a requirement should be included to model the extent of possible dust or vapour transport and produce a map of the likely fallout zones, with details of the protection measures that will be implemented within the fallout footprint.

17. Hydrological Processes –

- a. The Environmental Objective should be expanded to include *hydrological regimes and quality of groundwater and surface water*.
- b. *Subsection 2.4.2* –
  - i. Under ‘Potential Impacts and Risks’ reference to the significance of the proposal impacts using the latest draft of the Western Davenport Water Allocation Plan (WAP) is inappropriate and should be removed. The project is not within the Western Davenport Water Control District and therefore the Western Davenport Water Allocation Plan is not applicable. Please see ALEC’s submission on the draft WAP available [here](#). (ALEC is seeking for this plan to be withdrawn, largely due to its unacceptable impacts on groundwater dependent ecosystems and cultural values - it is highly unsuitable for the purpose described).
  - ii. In the same section reference to “relevant guideline thresholds” is also inappropriate in the form written. In particular ALEC is deeply opposed to the guideline Limits of acceptable change to groundwater dependent vegetation in the Western Davenport Water Control District<sup>1</sup> being used. This is an unacceptable basis upon which to evaluate impacts and risks. This is for two reasons: 1. because the site is not in the Western Davenport Water Control District; and 2. ALEC is also deeply opposed to this guideline which allows unacceptable impacts on groundwater dependent ecosystems (up to 30% can be damaged or destroyed). Groundwater dependent ecosystems must be protected as these are highly significant parts of the landscape. Furthermore FOI has shown this guideline was prepared only in consultation with the applicants of the Singleton groundwater licence - it has no social licence and has not been subject to scrutiny for compliance with ESD principles.
  - iii. We also consider the reference to the NTWAPF is redundant as this environmental impact assessment will provide more comprehensive information and a better basis for consideration of environmental acceptability.
  - iv. Under ‘Monitoring and reporting,’ given the likely impacts on groundwater, the draft EIS must include monitoring beyond the lifespan of the project.

18. Culture and Heritage -

- a. *Subsection 2.4.5* - The Management and/or Monitoring sections should include details of the localised training the workforce will receive in Aboriginal culture and heritage.

#### **Section 2.2.7 – Closure and rehabilitation**

19. This section should include total site remediation and rehabilitation for all aspects of the operation including the mine, fertiliser plant, storage/waste areas and infrastructure.
20. In addition to the rehabilitation and closure outcomes, the proponent must include details of agreed upon closure criteria that will determine when the mine and overall Project have been completed

Thank you for considering this submission.

Kind regards

Adrian Tomlinson

Chief Executive Officer

Arid Land Environment Centre

