

Statement of Reasons

RTA GOVE PTY LTD – BORROW AREA DEVELOPMENT PROJECT, GOVE OPERATIONS, RIO TINTO ALUMINIUM, NHULUNBUY NT

PROPOSAL

RTA Gove Pty Ltd (the Proponent) submitted a Notice of Intent (NOI) for the Borrow Area Development Project, Gove Operations, Rio Tinto Aluminium, Nhulunbuy NT (the Proposal) to the Northern Territory Environment Protection Authority (NT EPA) on 4 June 2019, and supplementary information 21 August 2019, for consideration under the Environmental Assessment Act 1982 (EA Act).

The Proposal is to expand an existing borrow area (Figure 1), approximately two kilometres south-west of Nhulunbuy. It includes the incremental clearance of 301.6ha of native vegetation and extraction of 5.5 million cubic metres of earth materials to a depth of 4 to 5 metres, over a period of 15 years, and rehabilitation of the area. The earth materials are to be used as capping materials for the residue disposal area associated with the Proponent's alumina refinery that is in the process of closure. The capping process is not part of the Proposal as it has previously been assessed and has an existing authorisation under the Mining Management Act 2001.

The NOI states that the aim of the rehabilitation is to return the pre-disturbance drainage and species composition to the Proposal area. There will be four vegetation zones: permanent water body, seasonally inundated sedgeland, melaleuca woodland and eucalypt woodland. Vegetation will be established in two stages; initially as a cover crop in the dry season, followed by direct seeding and planting of tube stock in the next wet season.

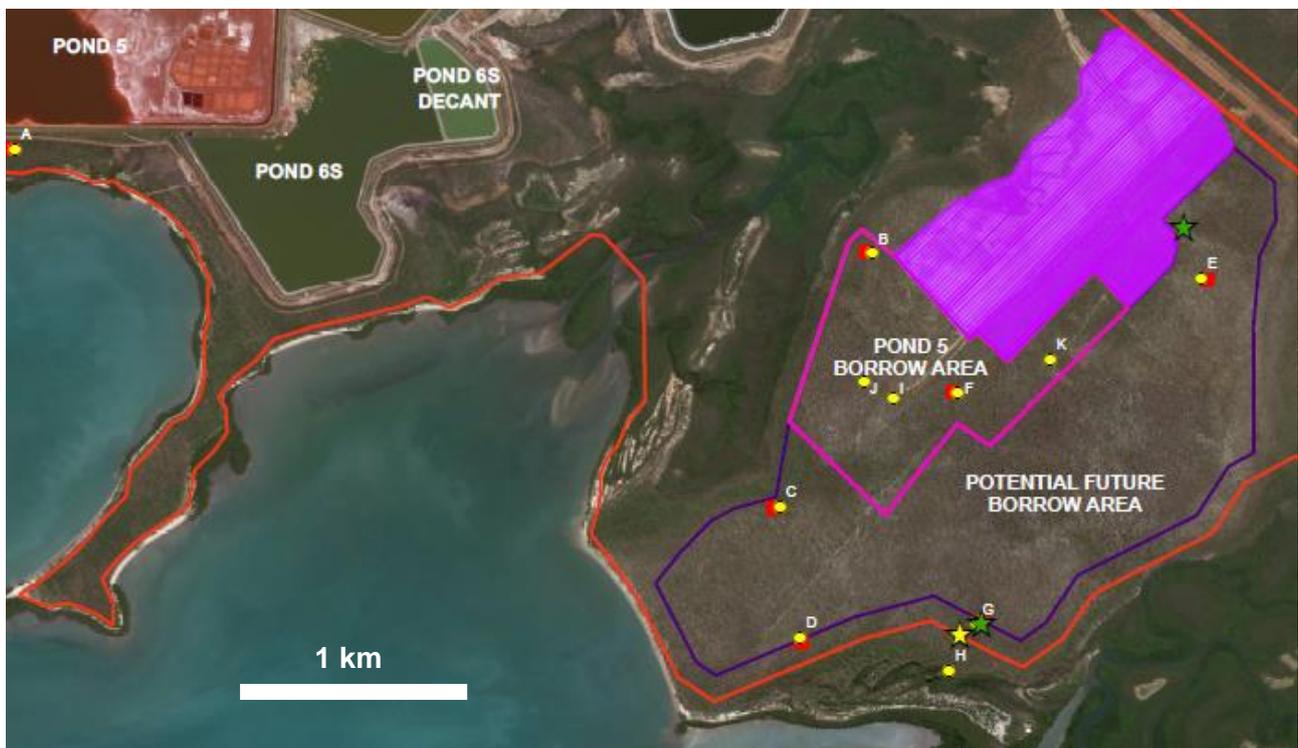


Figure 1: The Proposal comprises the Pond 5 borrow area and the Potential future borrow area, adjacent to an existing borrow area (shaded purple). Source: Notice of Intent; page 8.

CONSULTATION

The NOI has been reviewed as a notification under the EA Act in consultation with Northern Territory Government (NTG) advisory bodies (see Attachment A) and the responsible Minister, in accordance with clause 8(1) of the Environmental Assessment Administrative Procedures 1984.

JUSTIFICATION

Each of the NT EPA's environmental factors and objectives was considered in relation to the Proposal outlined in the NOI. The NT EPA identified that five environmental factors (Table 1) could potentially be significantly impacted by the Proposal.

Table 1. Key NT EPA environmental factors that could be potentially significantly impacted by the Proposal

Theme	Key Environmental Factor	Objective
Land	Terrestrial flora and fauna	Protect the NT's flora and fauna so that biological diversity and ecological integrity are maintained.
	Terrestrial environmental quality	Maintain the quality of land and soils so that environmental values are protected.
Water	Hydrological processes	Maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.
People and Communities	Social, economic and cultural surroundings	Protect the rich social, economic, cultural and heritage values of the Northern Territory.
	Human health	Ensure that the risks to human health are identified, understood and adequately avoided and/or mitigated.

1. Terrestrial flora and fauna

Objective: Protect the NT's flora and fauna so that biological diversity and ecological integrity are maintained.

The 301.6ha Proposal area includes approximately 12ha of regrowth from previous disturbance and 298ha of undisturbed *Eucalyptus tetrodonta* woodland. The Proposal will avoid clearing approximately 3.5ha of paperbark woodland recognised as a sensitive/significant vegetation type in the NT Land Clearing Guidelines (2019)¹. The NOI noted that one plant species known from the region and listed as endangered under the Territory Parks and Wildlife Conservation Act 1976 (TPWC Act), *Erythroxylum* sp. Cholmondely Creek, is not likely to occur in the Proposal area. This conclusion was supported by the Flora and Fauna Division of the Department of Environment and Natural Resources (DENR).

The NOI stated that the 3.5ha of paperbark woodland may provide suitable habitat for the Gove Crow Butterfly (*Euploea alcatheae enastri*), however the NT EPA notes that this species is no longer listed as threatened under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) or the TPWC Act.

Mangroves are recognised as a sensitive/significant vegetation type in the NT Land Clearing Guidelines (2019). No mangroves are within the Proposal boundary however they are located

¹ https://nt.gov.au/_data/assets/pdf_file/0007/236815/land-clearing-guidelines-2019.pdf

in close proximity to the western proposal boundary. The Proponent has committed to maintaining a 100m buffer which is an appropriate buffer consistent with the Land Clearing Guideline requirement.

The NOI listed eight additional threatened fauna species that could potentially occur in the Proposal area. Of these, the only species found to occur in the Proposal area was the black-footed tree-rat (*Mesembriomys gouldii gouldii*), listed as endangered under the EPBC Act and vulnerable under the TPWC Act. The proposed vegetation removal has the potential to impact on this species.

To better understand the potential occupancy of the Proposal area by black-footed tree-rats, the Proponent conducted a camera trap survey and developed an occupancy model. The model provides an assessment of the relative importance of habitat for black-footed tree-rats. The probability of occurrence is low over the majority of the Proposal area, and moderate over a corridor along a drainage channel at the eastern edge of the Proposal area.

The habitat proposed for clearing is not considered critical for the species. The habitat is also locally and regionally abundant and well connected, such that any black-footed tree-rats present in the Proposal area would be able to disperse. The Proposal area will be rehabilitated following removal of the habitat and extraction of earth materials. Evidence from monitoring at the Alcan Gove mine shows that the occupancy of black-footed tree-rats is similar to that of native vegetation by 21 to 30 years following rehabilitation. In consideration of these factors, the NOI concluded that clearing of the Proposal area is unlikely to lead to a decline of the species.

The Flora and Fauna Division of the DENR advised that the overall risk posed by the Proposal to the black-footed tree-rat is considered low but any residual risk could be further reduced by increasing the buffer to the drainage line on the eastern boundary of the proposed project footprint, to protect more of the higher value black-footed tree-rat habitat.

The NT EPA is supportive of the Proponent's approach to investigate methods for rehabilitating the borrow areas without topsoil, as this would likely reduce the need to clear and extract topsoil from the whole Proposal area, allowing some vegetation and land to remain intact.

The NT EPA considers that potential impacts and risks to terrestrial flora and fauna are not significant and can be mitigated as committed by the Proponent. The NT EPA considers that its objective for terrestrial flora and fauna is likely to be met.

2. Terrestrial environmental quality

Objective: Maintain the quality of land and soils so that environmental values are protected.

The Proposal area is generally undulating plains with gradients of 1 to 3%. As the native vegetation is largely intact, soils are generally undisturbed and are characterised by sandy loams, frequently with an abundant surface cover of laterised pea gravel. As some parts of the Proposal area are close to the coast with low elevations, soils were tested for acid sulfate potential. None of the 14 samples indicated acid sulfate soils.

The Proposal will result in significant disturbance of the land and soil. There is potential for soil destabilisation to cause significant impacts if sediment is released to the downstream environment and/or if soils remain unstable in long term. As the Proposal area is located close to mangrove communities, any sediment mobilised and carried downstream during implementation of the Proposal could impact on adjacent mangroves.

The NOI states that soil destabilisation will be mitigated by confining works to the drier months (between May and December), implementing erosion and sediment control measures in

accordance with best practice guidelines², and progressively rehabilitating the area with native vegetation. The NT EPA notes that it will be important for erosion and sediment controls to prevent runoff to adjacent mangroves and downstream environmental values.

The NT EPA considers that successful rehabilitation is a key step for ensuring that the soil and land is stabilised for the long term. The NOI states that the Proposal area will be progressively rehabilitated in conjunction with the rehabilitation of the existing borrow area. The methodology will depend on results from a 15ha trial area where rehabilitation will commence in 2019. The NT EPA acknowledges that the Proponent has effectively demonstrated its rehabilitation capabilities through the rehabilitation of 3,475ha of bauxite mining area where vegetation and earth materials have been similarly removed.

While there is potential for significant impacts to terrestrial environmental quality from the Proposal, the NT EPA considers that the mitigation measures outlined in the NOI are sufficient. It will be essential for the Proposal area to be successfully rehabilitated to ensure that the NT EPA's objective for terrestrial environmental quality can be met.

3. Hydrological processes

Objective: Maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.

The Proposal area is located adjacent to the coast and contains no defined streams or drainage channels. Surface water drains towards Melville Bay via tidal creeks that lie to the west and east of the Proposal area. The coastline and tidal creeks to the west and south have been buffered by at least 100m such that the boundary of the Proposal area is entirely above sea level. There are no riparian zones, or areas subject to flooding within the Proposal area.

There is potential for the extraction of earth materials down to a depth of 5m (in places) to alter hydrological processes by enabling saltwater or groundwater intrusion to the land surface. The Department of Primary Industry and Resources advised that saltwater and groundwater intrusion is unlikely because the extraction depths would average approximately 1.5m while the land surface across the Proposal area has elevations of 7 to 20m above sea level.

The NT EPA considers that potential impacts and risks to hydrological processes are not significant due to the sufficient elevation of the Proposal area above sea level. Any potential impacts can be mitigated by effective restoration. The NT EPA considers that its objective for hydrological processes is likely to be met.

4. Social, economic and cultural surroundings

Objective: Protect the rich social, economic, cultural and heritage values of the Northern Territory.

The activities conducted by the Proponent on the Gove Peninsula include mining and rehabilitation activities associated with an export bauxite mine. These activities, and the operation and closure of the former alumina refinery, have significantly influenced the social, economic and cultural surroundings of the Gove Peninsula since the mine was established in 1963. Employment opportunities, economic activity and population has declined in the region since the refinery closed in 2014.

The Gove Peninsula is largely freehold Aboriginal land held by the Yolngu people, with the exception of the special lease on which the Proposal is located. Yolngu have lived in the area for at least 40,000 years and have maintained strong ties with their land, culture and traditions.

² IECA 2008. *Best Practice Sediment and Erosion Control*, International Erosion Control Association Australasia

There are known significant archaeological sites near but not in the Proposal area and these sites would not be affected by the Proposal.

The NOI stated that Traditional Owners were formally consulted in 2017 (including a site visit) in accordance with the Rio Tinto Alcan Gove Traditional Owners Agreement. The Proponent stated that consultation with Traditional Owners about the clearing and establishment of the borrow area, has been undertaken and that no concerns were raised by Traditional Owners about the Proposal during this consultation. The Proponent confirms there are no sacred sites within or near the Proposal area. The Proponent has been advised to obtain an Authority Certificate from the Aboriginal Areas Protection Authority for the Proposal before any ground disturbing work commence.

The NT EPA considers that potential impacts and risks to social, economic and cultural surroundings are not significant due to the fact that no archaeological sites are located within the Proposal area, consultation has occurred, and the Proposal will provide some continuing employment to staff. The NT EPA considers that its objective for social, economic and cultural surroundings is likely to be met.

5. Human health

Objective: Ensure that the risks to human health are identified, understood and adequately avoided and/or mitigated.

The Proposal area is located at least 1.6km from the nearest residents and at least 5km from recreation areas managed by Dhimurru³. Implementation of the Proposal would be unlikely to affect areas at that distance.

The NOI stated that the rehabilitation will involve the creation of a permanent water body and seasonally inundated sedgeland. It is possible that this could create mosquito breeding habitat that could pose threats to the health of people using the Proposal area (or nearby) in future. The NT EPA considers that the creation of mosquito breeding habitat should be avoided and has provided the Proponent with recommendations from the Department of Health for the design of permanent water bodies for minimising mosquito breeding potential.

The NT EPA considers that these impacts are not significant and its objective for human health is likely to be met.

Conclusion

The NT EPA considers that significant environmental impacts are unlikely and can be adequately managed by measures outlined in the NOI and committed to by the Proponent.

The NT EPA considers that the potential environmental impacts and risks associated with the Proposal are not significant and that the Proposal does not require assessment under the EA Act.

Comments from NTG advisory bodies have been provided to the Proponent to further minimise potential impacts on the environment.

DECISION

The proposed action, which was referred to the NT EPA by RTA Gove Pty Ltd, has been examined by the NT EPA and preliminary investigations and inquiries conducted. The NT EPA has decided that the potential environmental impacts and risks of the proposed action are not so significant as to warrant environmental impact assessment by the NT EPA under provisions of the Environmental

³ an Aboriginal Corporation that manages recreation areas where people can enjoy the natural environment on and around the Gove Peninsula

Assessment Act 1982. However, the proposed action will require approval and regulation under the Mining Management Act 2001 to ensure the environmental issues associated with the proposed action are effectively managed.

This decision is made in accordance with clause 8(2) of Environmental Assessment Administrative Procedures, and subject to clause 14A the administrative procedures are at an end with respect to the proposed action.

A handwritten signature in blue ink, appearing to read 'P. Vogel', is written over a horizontal line.

DR PAUL VOGEL AM MAICD

CHAIRMAN

NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY

27 AUGUST 2019

Attachment A: Northern Territory Government Advisory bodies consulted on the Notice of Intent

Department	Division
Department of Environment and Natural Resources	Flora and Fauna Water Resources Weeds Environment Rangelands
Department of Infrastructure, Planning and Logistics	Engineering and Environment Services
Department of Primary Industry and Resources	
Department of Tourism and Culture	
Department of Health	Environmental Health Medical Entomology
Department of Trade, Business and Innovation	Strategic Policy and Research
Department of Housing and Community Development	
Aboriginal Areas Protection Authority yep	
Department of the Chief Minister	Economic and Environmental Policy