ntepa Northern Territory Environment Protection Authority

Statement of Reasons

DAC ENTERPRISES PTY LTD – MA29641 (TAYLOR ROAD SOUTH QUARRY) PROJECT

PROJECT

DAC Enterprises Pty Ltd (the Proponent) prepared the Mining Management Plan (MMP) for the MA29642 Taylor Road South Quarry Project (the Project) which was submitted to the Northern Territory Environment Protection Authority (NT EPA) by the Department of Mines and Energy (now Department of Primary Industry and Resources, DPIR) on 13 May 2016 for consideration under the *Environmental Assessment Act* (EA Act).

On 6 July 2016, the Department of Mines and Energy wrote to the Proponent requesting additional measures to avoid/mitigate potential impacts to threatened species. Responses to the request were received on 16 August 2016 and 30 September 2016 and forwarded to the NT EPA for further consideration under the EA Act. Additional information was requested by the NT EPA on 27 January 2017. The response to this request was received on 20 September 2017.

The Project is located approximately 6 km north of Palmerston and 22 km from the Darwin CBD.

The MMP outlines the proposed annual extractive operations within MA29641. The Proponent plans to extract up to 200 000 tonnes of quartzite rock each year with a total mine life of approximately nine years (total resource of 1.5 Mt). The tenement and an adjoining area share an existing pit with a footprint of 2.5 ha and approximately 15m depth. The Project would expand this pit by 2 ha. Extracted material would either be transported offsite or transported to an adjacent lease for further crushing/screening. Waste rock (predominantly siltstone) would be stockpiled and used for other purposes (where possible). Any remaining waste rock would be returned to the pit once operations have ceased.

Progressive rehabilitation is proposed for the disturbed areas using stockpiled topsoil. Pits will be left as a void which will likely contain water for most of the year.

CONSULTATION

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

JUSTIFICATION

The MMP and further information were assessed against the NT EPA's environmental factors and objectives. Review by the NT EPA and NTG advisory bodies identified potential for significant impacts to the key environmental factors of Terrestrial flora and fauna and Inland water environmental quality.

Terrestrial Flora and Fauna

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

Significant and sensitive vegetation

The Project would require the clearing of 2 ha of vegetation to expand the existing pit. The vegetation is open eucalypt woodland and not considered to be a significant or sensitive vegetation type. Riparian vegetation associated with King Creek occurs along the eastern boundary of the tenement. The scope of works avoids impact to this vegetation with the Proponent committing to maintaining a 25 m buffer in accordance with the Northern Territory Land Clearing Guidelines. The clearing of vegetation and disturbance of soil would increase the suitability of the site for weeds to become established and spread. Weeds can degrade vegetation and increase the potential impact and risk to vegetation and other biodiversity values from intense fires. The Proponent has developed a Weed Management Plan for MA29641 which sets out the weed hygiene, surveys, monitoring and control measures.

The NT EPA considers that the potential impacts to vegetation are unlikely to be significant.

Threatened species

The Department of Environment and Natural Resources (DENR) has identified four threatened species present or likely to be present on the site.

Flora

Typhonium praetermissum is listed as vulnerable under the *Territory Parks and Wildlife Conservation Act* (TPWC Act) due to its restricted range and small number of individuals. Habitat mapping by DENR suggests that the site constitutes suitable habitat for the species. Surveys of the site were undertaken in April 2016 with eight *T. praetermissum* recorded. Additional targeted surveys for *T. praetermissum* were undertaken in April 2017 with 52 plants identified within and adjacent to MA29641.

The Project would directly remove 2 ha of suitable habitat and the loss of 16 *T. praetermissum*. Indirect impacts to adjacent habitat and *T. praetermissum* may occur through dust, weeds and changes to the local surface water hydrology resulting in erosion and sedimentation. While the NT EPA's clear preference is that Project activities avoid known habitat occupied by the species, the Proponent has committed to implementing appropriate mitigation and management measures to avoid or manage other threats to the remaining plants adjacent to MA29641 (i.e. weeds).

The NT EPA notes that the *T. praetermissum* on the site may be connected to the larger Holtze sub-population. The loss of 2 ha of suitable habitat for *T. praetermissum* and 16 individual plants would have a small impact on the extent and number of individuals in the total population. While the Project would contribute to the cumulative loss of *T. praetermissum*, on its own, the loss of 16 plants would be unlikely to have a significant impact on the total population or the greater Holtze sub-population.

The Darwin cycad *Cycas armstrongii* is listed as vulnerable under the TPWC Act. The species is range restricted with a small percentage of the range occurring within protected areas. The MMP has not provided information about the presence and density of *C. armstrongii* from MA29641. Suitable habitat is likely to occur on the site.

The Project represents a small footprint within the area of occurrence of *C. armstrongii* in the Greater Darwin Region (GDR) and as such the NT EPA is of the opinion that removal of individual plants is unlikely to significantly impact on local or regional populations.

Fauna

Suitable habitat for the northern quoll (*Dasyurus hallucatus)* and the black-footed tree-rat *(Mesembriomys gouldii gouldii)* occurs within the Project area. Historically, it is likely that northern quoll occupied the site prior to significant declines due to the arrival of the cane toad (*Rhinella marina*). While northern quoll has been found to persist in some areas (including the GDR), there is a low likelihood of the northern quoll being present in the Project area. Additionally, based on the small footprint of the Project within the area of occurrence of black-footed tree-rat in the GDR the NT EPA is of the opinion that the Project poses a low risk to regional populations of these species.

The NT EPA is satisfied that potential impacts and risks to sensitive vegetation and threatened species will be mitigated through measures presented in the MMP so that its objective for terrestrial flora and fauna is likely to be met.

Inland Water Environmental Quality

Objective: To maintain the quality of groundwater and surface water so that environmental values including ecological health, land uses, and the welfare and amenity of people are protected.

The tenement is located immediately adjacent to a tributary of King Creek which flows north before discharging into the Shoal Bay Site of Conservation Significance. The boundary of the existing pit and the proposed works are located about 200-250 m from King Creek.

Mining activities associated with this Project would generate sediment which could be mobilised during significant rainfall events and enter King Creek. To manage this risk, the Proponent has prepared an Erosion and Sediment Control Plan which proposes the use of a log sediment and silt trap in the north eastern portion of the tenement to intercept and slow surface run-off from flowing east towards King Creek. Additional temporary bunding would be constructed around the southern part of the pit to slow and divert surface flows around operational areas and reduce potential mobilisation of sediment. Monitoring of surface water quality and quantity is proposed to be undertaken by the Proponent.

The NT EPA is satisfied that potential impacts and risks to surface water quality will be mitigated through measures presented in the MMP so that its objective for Inland water environmental quality is likely to be met.

Conclusion

The NT EPA considers that the potential environmental impacts associated with the Project are not significant and that the Project does not require assessment under the EA Act. Comments from NTG advisory bodies have been provided to the Proponent and to DPIR to ensure that impacts and risks can be appropriately managed.

The Proponent has proposed mitigation and management measures in the MMP and will implement an MMP that includes environmental management and monitoring plans, regulated by the DPIR.

DECISION

The proposed action, which was referred to the NT EPA by DPIR, 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 Assessment Act*. However, the proposed action will require assessment and authorisation under the *Mining Management Act* to ensure the potential environmental impacts and risks 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.

DR PAUL VOGEL

CHAIRMAN

NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY

12 FEBRUARY 2018