

# Statement of Reasons

## OSTOJIC GROUP PTY LTD – AREA 47 PROJECT

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### PROJECT

Ostojic Group Pty Ltd (the Proponent) prepared the Mining Management Plan (MMP) for the Area 47 Project (the Project) which was submitted to the Northern Territory Environment Protection Authority (NT EPA) by the Department of Primary Industry and Resources (DPIR) on 9 September 2016 for consideration under the *Environmental Assessment Act* (EA Act). Further information was requested on 16 November 2016 to inform the NT EPA's decision. The Proponent responded to the further information request on 29 August 2017.

The proposal is to expand existing operations of open pit extraction of sand and gravel within MA47 and MA142. Raw material will be excavated and processed onsite using screening and sand washing equipment to produce aggregates and sands. Water for sand washing would be sourced from existing pits/storage dams within the tenements. The process water is to be discharged back into the existing pits/ storage dams to allow any sediment to settle out of suspension. Processed material will be allowed to dry before being transported offsite.

The Project site is located approximately 5 km north of Howard Springs and 21 km from Darwin CBD. The area is within the Shoal Bay Site of Conservation Significance and borders the Howard Springs Hunting Reserve to the west. It is also within the Elizabeth and Howard Rivers Region Groundwater beneficial use areas, declared under the *Water Act*.

The Project is proposed for 9 ha of tenement MA47 located on crown land.

The Project includes the following components and activities:

- clearing of approximately 8 ha of regrowth vegetation
- clearing of approximately 1 ha of native vegetation
- extraction of 85 000 tonnes of sand and gravel in the first 12 months with the remaining 1.14 Mt extracted over 10 years
- 'Not operable status' in Wet season due to water table
- two existing supply ponds used to supply water requirements for extraction operations
- one existing pit lake for storing and settling discharge waters

Works are planned for the 2018 Dry season. On completion of mining activities, the site would be stabilised in accordance with the Rehabilitation and Closure Plan. The final layout and land use of the site would be dependent on the results of future negotiations with the landholder.

### CONSULTATION

The MMP and further information have 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.

## JUSTIFICATION

The MMP and further information was 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, Hydrological processes 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.

The Project has the potential to impact on flora and fauna through the clearing of vegetation, the loss of habitat for threatened species and the introduction and spread of weeds. The Project area is currently highly disturbed with historical and active extractive operations. The area largely comprises open woodland dominated by *Eucalyptus miniata* and *E. tetradonta*, with two sensitive vegetation types; large areas of sandsheet heath on the western portion and monsoon vine forest (hereafter considered as rainforest) occur along the main drainage lines on the eastern boundary. The Department of Environment and Natural Resources (DENR) concurs with the Proponent's assessment of threatened flora and fauna that risks to threatened species are likely to be very low. This is due to the small disturbance footprint which would largely clear regrowth on historically disturbed areas.

#### *Flora and sensitive vegetation communities*

The mining activities associated north of Pit 3 and between storage dams 2 and 3 would occur in a highly disturbed area and impacts to significant and sensitive vegetation types are highly unlikely.

Mining activities south east of Pit 3 would extend to 40 m from an area of mapped rainforest located at the junction of two main drainage lines. This rainforest would be reliant on surface water flows rather than groundwater. Previous mining disturbance exists approximately 100 m from the edge of the rainforest.

The current NT Land Clearing Guidelines recommend a 25 m buffer for clearing less than 8 ha from sensitive vegetation such as rainforest and the NT EPA recommends that the Proponent maintain a buffer of undisturbed vegetation from the edge of the rainforest in accordance with the NT Land Clearing Guidelines. This buffer together with the implementation of appropriate standard environmental management measures would be necessary for mitigating any edge effects from mining activities, particularly from weed incursions, sedimentation, dust and minor changes to the local hydrology.

Targeted surveys for the threatened cycad (*Cycas armstrongii*) identified two *C. armstrongii* plants south east of the existing pits. No *C. armstrongii* were identified in the areas identified for mining.

#### *Fauna*

The NT EPA notes that Mertens' water monitor (*Varanus mertensi*) has been recorded within the mining lease on 12 February 2016 by DPIR Staff<sup>1</sup>. Suitable habitat for this species occurs within the inundated pits on the site and adjacent vegetation. While operation of the mine could result in the loss of individual animals through road strike and clearing of vegetation, these risks can be mitigated through standard environmental measures and the potential loss of individuals does not represent a significant impact on local or regional populations of the species.

The Northern Territory Government has committed to the protection of the most significant and sensitive biodiversity values of the Howard Sandsheet within two priority protection areas

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<sup>1</sup> <http://root.ala.org.au/bdrs-core/nt-dlrm/review/sightings/advancedReview.htm>

approximately 4 km south of MA47. The NT EPA is satisfied that the priority areas adequately protect the highest biodiversity values of the Howard Sandsheet.

The NT EPA is satisfied that the potential impacts and risks to sensitive vegetation and threatened species would be mitigated through the measures presented above and that the NT EPA's objectives for terrestrial flora and fauna is likely to be met.

### ***Hydrological processes***

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

The Project area is highly modified due to historical mining and the Project would further alter the local surface and groundwater hydrology. These changes would be localised and are unlikely to significantly affect the regional surface and groundwater hydrology of the region.

Mining activities would be at a depth where groundwater is likely to be intercepted during the Wet season when the water table rises. The Proponent has acknowledged this risk and would restrict mining activities to the Dry season when regional groundwater levels have sufficiently receded to make the resource accessible. Pumping of water into adjacent pits would only occur once groundwater levels had receded and prior to mining operations commencing.

Given the small area of disturbance and the small area of catchment that would be affected, the NT EPA considers that the surface and groundwater hydrology of the site is unlikely to be significantly effected by the proposed mining activities. The NT EPA recognises that there are existing activities (e.g. residential areas, mining extraction activities) in the greater Howard River catchment which have a cumulative effect on hydrological processes. The NT EPA considers that the scale of the works proposed in the MMP would further contribute to this effect, however it would not be considered significant.

The NT EPA considers that the potential environmental impacts and risks associated with the Project would be low due to the scale of the activity and not operating when dewatering would be required. Furthermore, the implementation of existing and proposed water management measures including diversion drains around pits would avoid impacts to the regional and local hydrology.

The NT EPA is satisfied that the potential impacts and risks to the surface and groundwater hydrology have been adequately avoided or mitigated through the measures presented. The NT EPA considers that its objective for Hydrological processes 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 operation includes storage of processing water in water supply ponds and pit lakes. The water supply ponds operate on a 'zero discharge' basis. This is generally achieved (except during extreme rainfall events) by transferring water between the three supply ponds. The ponds have varying levels of turbidity depending on the location from the sorting area as well as the depth of each pond.

During high rainfall events, excess water would leave through 'high level drains' from the pond that has had the highest retention time (and therefore the lowest turbidity). The water balance identifies that 113 ML of water needs to be discharged each Wet season. This discharge occurs through the northern drain of Pit 3 with flows directed into old pits downstream. The old workings would retard flows and provide further settlement time before entering the Howard River.

The NT EPA notes that formal water quality monitoring of the pit water has commenced. It is noted that there are no commitments to monitor the quantity or quality of water that is discharged from the 'high level drains'. To protect the environmental values of the Howard River and the potential for impacts to water quality, it is recommended that DPIR require the Proponent to identify water quality thresholds and monitor the quality and quantity of water being discharged through the 'high level drains'. The NT EPA notes that if waste water is to be discharged from the tenement into receiving waters (i.e. Howard River) the Proponent will require a Waste Discharge Licence under the *Water Act*.

There is potential for erosion and sedimentation issues to reduce the quality of receiving waters downstream of the site. The Proponent has provided an erosion and sediment control plan which identifies the key avoidance and mitigation measures that have been adopted on the site. The Proponent has committed to visual inspections during the Wet season to identify any additional control measures that may be required.

The NT EPA is satisfied that the potential impacts and risks to the surface and groundwater quality have been adequately avoided or mitigated through the measures presented. The NT EPA considers that its objective for Inland water environmental quality is likely to be met.

## **CONCLUSION**

The NT EPA considers that the potential environmental impacts and risks 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 the NT EPA has provided recommendations 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  
CHAIR

NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY

6 FEBRUARY 2018