

Kylie Fitzpatrick
Department of Environment, Parks and Water Security
16 Parap Road, Parap
GPO Box 3675,
DARWIN, NT 0801

Dear Ms Fitzpatrick

Re: Supplement to draft EIS - Rustlers Roost and Quest 29 Open-Cut Mine Redevelopment

The Department of Environment, Parks and Water Security (DEPWS) provided has assessed the information contained in the above application and provides the following comments:

Water Resources Division

Water Resources Division provides the following in relation to the Supplement to the Draft EIS for Primary Gold for project on Mt Bundy Station.

General comments:

The project is located outside of a water control district and is not subject to a water allocation plan. .

Directed comments:

WRD Branch	Comment
Surface Water	<p>A detailed hydrological and hydraulic study has shown negligible impacts from the mine site on discharges within the receiving tributaries Marrakai Creek, Mt Bundey Creek and Charles Creek. A significant increase in discharge exists during the 1% and 0.1% AEP events at the discharge point from the mine site into Mt Bundey Creek, however this rapidly dissipates downstream as mine discharges become a smaller percentage of overall catchment drainage. Downstream impacts on the 1% and 0.1% AEP events are negligible.</p> <p>Modelled simulations found that cadmium concentrations were found to exceed the site specific trigger value at the mine outlet to Mt Bundey Creek during the 0.1% AEP event, however all other contaminants remained below trigger values for that event. All contaminants including cadmium remained below trigger levels for the 1% AEP event.</p>

	<p>Changes to catchment hydrology and impacts from the proposed development are considered to be minimal.</p> <p>Use of the 30m SRTM derived DEM is commonly used however for this proposal which reports consistent peak discharges in a relatively undeveloped catchment the use of 30m SRTM derived DEM is suitable.</p>
Groundwater	<p>The proponent has adequately addressed previous comments or recommendations concerning the management and protection of groundwater resources at the Quest 29 and Rustler's Roost sites.</p> <p>The proponent has demonstrated how their activities might impact groundwater and how they intend to minimise or eliminate those impacts. The department agrees with the outcomes of the peer review by HydroGeoLogic that considered the groundwater model fit for the Class 2 investigative modelling purpose.</p> <p>Additionally, the updated Commitment's Register includes a comprehensive list of commitments to site water management from the pre-construction to closure stages of the project, which demonstrates the proponent's intention to achieve positive environmental outcomes over the course of the project.</p>
Water Act licensing and permitting requirements	<p>The Supplement addresses the previous comments in relation to water extraction licensing and interference with waterway permitting.</p> <p>The proponent has updated the Water Management Plan to include volumes and extraction schedules however the proponent should contact Water Licensing on water.licensing@nt.gov.au to discuss the licensing process and requirements for any applications.</p>

Rangelands Division

Weeds Management Branch

This submission is made under regulation 140 of the Environment Protection Regulations 2020.

Summary: The proponent has committed to addressing the environmental risk posed by declared weeds on the site. The general area has significant gamba grass infestations.

Section of Referral	Theme or issue	Comment
Appendix L Commitment Register	Weed plan development and implementation	<p>The proponent must develop and implement the proposed Weed and Pest Management Plan in line with the relevant NT Statutory Weed Plans including but not limited to:</p> <ul style="list-style-type: none"> • Gamba grass - Weed Management Plan Gamba Grass 2020-2030 • Mimosa - Weed Management Plan for Mimosa (<i>Mimosa pigra</i>) 2018

The above plans state minimum management requirements that must be achieved by land owners and or managers for each species.

Gamba and some other introduced grasses have been listed as key threatening processes (KTP) under the EPBC Act - Ecosystem degradation, habitat loss and species decline due to invasion of northern Australia by introduced Gamba Grass (*Andropogon gayanus*), Para Grass (*Urochloa mutica*), Olive Hymenachne (*Hymenachne amplexicaulis*), Mission Grass (*Pennisetum polystachion*) and Annual Mission Grass (*Pennisetum pedicellatum*).

The proponents weed plan was not provided. This should be included in any environmental approval to address the KTP and or the spread of weeds from the subject land to other areas.

Flora and Fauna Division

The Division's comments on the Draft EIS have been addressed in the Supplement.

Environment Division

Note: The *Waste Management and Pollution and Control Act 1998* (WMPC Act) does not apply in relation to contaminants or wastes that results from, directly or indirectly, the carrying out of a mining activity if the contaminant or waste is confined within the land on which the activity is being carried out.

The *Water Act 1992* (Water Act) section 16 does not apply to waste that come into contact with water, or water that is polluted if the contact of pollution occurs in the course of carrying out a mining activity and the waste or polluted waste is confined within the mining site on which the activity is being carried out.

The action may require approvals and licences under other NT legislation administered by the Environment Division such as a waste discharge licence under the Water Act should the discharge of mining impacted water be required. Without authorisation, the proponent must ensure that there is no discharge of contaminated water from the premises into the groundwater or any surface waters. Guidance on waste discharge licences is available within Guidelines on waste discharge licensing under the Water Act.

Section of Referral	Theme or issue	Comment
Main document and all associated Appendix's	Site specific Trigger Values (SSTV)	<p>All supporting documents reference both ANZG 2018 95 species protection levels (SPL) and SSTV for Toms Gully Mine the CSIRO Review of Site-Specific Trigger Values for Toms Gully Mine, NT produced by Stauber and Batley 2018 (Appendix A to Water Management Plan (Appendix Q)).</p> <p>The NT EPA produced Assessment Report 91 for the Toms Gully Underground Mine Project in February 2020. Recommendation 9 within the report states:</p> <p><i>'That approvals and decisions for the Proposal specify that water quality at the compliance points in Mount Bunday Creek and Coulter Creek meet 95% species protection level. The site specific trigger values (SSTVs) for discharge water quality must be appropriate to achieve this.'</i></p>

It is unclear what the reasoning is behind comparing water quality data to the Toms Gully SSTV document given that it was produced prior to the recommendations being made by the NT EPA within Assessment Report 91. Additionally, the SSTV within the document are primarily based off ANZG2018 90% Species Protection Levels (SPL) with background data used for the assessment from 2015. The development of SSTV for Mount Bunday Creek must be revised to ensure they are consistent with the NT EPA recommendation and based on contemporary water quality data.

Appendix O - Updated Groundwater Modelling Report

Dewatering and discharge to receiving environment

PGO currently hold WDL247 which authorises the discharge of water from the Rustlers Roost Pit. During the 2021/22 wet season a total volume of 1.3GL of water was discharged to Mount Bunday Creek at a consistent rate of 215 L/s over a ~13 week period. The current discharge is comprised of mostly rain water, which is within ANZG2018 95% SPL for toxicants and minimal to no dilution is required to achieve SPL compliance. Given this, the discharge could remain at a consistent rate over the wet season.

It is important to note that WDL247 becomes void once mining operations commence, an amended WDL will be issued to facilitate discharge during mining based on recommendations and conditions within the Environmental Approval.

The modelled annual volumes of water required to discharge provided in Table 6-15 of the Updated Groundwater Modelling Report ranges from 1.55 giganlitre (GL) (minimum), 3.36 GL (median) and 6.96 GL (maximum). The modelling suggests that the median amount of water required to be discharged annually is 3.36 GL. It is not clear from the information provided how PGO plan to dispose of this amount of water during the wet season to ensure that water quality within the receiving environment remains within SPLs.

It is understood that discharge to both Mount Bunday Creek and Marrakai Creek is proposed but due to the peak flow rates provided for Marrakai Creek (700L/s) the high amounts of discharge (300L/s) to the creek is likely to be unable to achieve SPLs, on account of the inflow/groundwater information provided. It is normal for discharge volumes to fluctuate during discharge to accommodate the varying flows and water levels within the receiving systems, no information has been provided regarding how discharge is intended to be managed to meet the SPL. Additionally, no alternative options have been proposed to manage water onsite should PGO be unable to discharge the required volumes during the wet season and be required to manage the water during the dry season when discharge under a WDL would not be authorised.

Should you have any further queries regarding these comments, please contact the Development Coordination Branch by email DevelopmentAssessment.DEPWS@nt.gov.au or phone (08) 8999 4446.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'M Wauchope', written in a cursive style.

Maria Wauchope
Executive Director Rangelands
14 November 2022