

Submission on the referral

Vista Gold Australia Pty Ltd – Mount Todd Gold Project Alterations

This submission is made under regulation 53 of the *Environment Protection Regulations 2020*

Government authority: Department of Industry, Tourism and Trade –Mining Operations

Summary: The proposed Project alterations is summarised in Table 2, which indicates the following key changes from the original EIS:

- Changes in ore grade cut-off resulting in an increase in life of mine from 13 years to 17 years and increased volumes of ore and waste to be mined; resulting in alterations to Waste Rock Dump, pit development, Retention Pond (RP) 1 and Water Treatment Plant (WTP) capacity.
- Inclusion of new disturbances within the mine lease: camp and camp access road
- Alteration of site power requirements from an onsite natural gas system to an offsite (outside ML) hybrid system (gas with capability for modification to future green hydrogen), supplied by a third-party
- Inclusion of new x-ray technology for improved screening of ore and wastes, with added benefit of reducing the volume of tailings required to be managed in the Tailings Storage Facility (TSF)

Comments in relation to these proposed project alterations are provided below.

Section of Referral	Theme or issue	Comment
Main Referral report – section 3.2	WRD – impacts to Terrestrial Environmental Quality	<p>The WRD is proposed to be altered to accommodate an increase in volume of waste rock, due to changes in ore grade cut-off that will result in the lateral expansion of the facility from 217ha to 240ha and a decrease in height from 350m to 310m. Despite these changes, the design of the WRD remains unaltered with respect to the key parameters of slope angles, construction method, encapsulation, cover layers, drainage and ramp grades.</p> <p>The approved MMP and Authorisation issued under the MMA include conditions that require independent expert review of the WRD design and of the <i>WRD Operations, Maintenance and Surveillance (OMS) manual</i>. Mining Operations considers that the proposed WRD alterations can be adequately managed under the existing Authorisation provisions.</p> <p>Gouldian Finch breeding and foraging habitats are proposed to be cleared to accommodate the changes to the WRD. Mining Operations will be guided by NT EPA and expert advice from DEWPS Flora and Fauna Division regarding this matter.</p>
Main Referral report – section 3.3	RP1 – impacts to inland water environmental quality	<p>The total area of RP1 has been reduced as a result of the proposed WRD expansion to the south extending over a much greater area of RP1. However, the RP1 depth will remain unchanged, and as such, RP1 will have a reduced storage capacity to accommodate AMD drainage from the WRD. The Operator proposes to use a proactive pumping system, as a result of this significant alteration, and is required under its Authorisation to develop TARPs (Trigger Action Response Plans) to manage water inventory in RP1. The drainage collected in RP1 will be transferred to the Process Water Pond for treatment and use in processing.</p>

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		<p>The approved MMP and Authorisation issued under the MMA includes conditions that require independent expert review of the RP1 design and other existing water storage structures, as well as the <i>Operations, Maintenance and Surveillance (OMS) manual</i> for all water storage structures.</p> <p>Further, Authorisation 0331-04 also includes conditions regarding the installation of seepage management systems, given that RP1 is not proposed to be lined; as well as requirements regarding independent audits for continued use and safe operation of water storage structures, and development of Trigger Action Response Plans for water inventory management.</p> <p>Mining Operations considers the proposed WRD alterations can be adequately managed under the existing Authorisation provisions.</p>
Main Referral report – section 3.3	WTP - impacts to inland water environmental quality	<p>The WTP capacity is proposed to be upgraded from 500 m³/hr to 600 m³/hr, where the increased volume of treated water will be used in processing and dust suppression. The Operator indicates that discharge of treated water to Edith River is unlikely, but is an option should it be required due to rain events or plant shutdown.</p> <p>Mining Operations has concerns regarding the need for offsite discharge of any surplus treated water, as the Operator has relinquished its Waste Discharge Licence (WDL). The water management plan assessed as part of the approved MMP under the MMA indicated:</p> <ul style="list-style-type: none"> • the likelihood of offsite discharge from high rainfall will be high in the first year of operations • the WTP will be able to operate at the 500m³/hr capacity within 2 years of project commencement. <p>The greatest concern to Mining Operations is related to the Project water balance modelling. The modelling assessed as part of the MMP used the following assumptions:</p> <ul style="list-style-type: none"> • Overtopping events were allowed to occur in the retention ponds • Outputs for ponds included evaporative losses, pumping and overtopping events (uncontrolled releases) • Permitted discharges to Edith River were not allowed from any retention ponds and WTP effluent was allowed to discharge to the Edith River during the Wet season • WTP rate was set at 500m³/hr. <p>Given the proposed increase of WTP capacity to 600m³/hr, higher volumes of treated water will be generated and the absence of a WDL raises significant concerns regarding water inventory management on the site. Further detailed water balance modelling will be required to demonstrate appropriate water inventory management.</p>
Main Referral report – section 3.6 and 3.7	Onsite camp and access roads – impacts to Terrestrial ecosystems	<p>The proposed alterations require additional clearing that may impact Gouldian Finch habitat.</p> <p>Mining Operations will be guided by NT EPA and expert advice from DEWPS Flora and Fauna Division regarding this matter.</p>
Main Referral	Energy demand	<p>The proposal includes construction of an electrical power plant and operation by a third party, outside of the mining lease. Section 3.8 of the referral document indicates Vista is in possession of the permits necessary of its construction.</p>

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report – section 3.8		As this activity is outside of the mining lease, it is outside the scope of the MMA.
Main Referral report – section 3.8	Sorter rejects – impacts to Terrestrial Environmental Quality	The proposed location of this facility has not been provided and Mining Operations assumes this will be in a disturbed area such as the ROM pad, given its intended use.