

6 September 2021

Co-Director
Department of Agriculture, Water and the Environment
Environment Assessments (Vic, Tas) and Post Approvals Branch
GPO Box 858
Canberra ACT 2601

Dear [REDACTED]

**EPBC 2021/8909 South Marionoak Tailings Storage Facility, Rosebery, Tasmania
Request for variation of the proposed action**

MMG Australia Ltd (**MMG**) referred the South Marionoak Tailings Storage Facility at South Marionoak, Tasmania (EPBC 2021/8909) (**Project**) under the *Environment Protection and Biodiversity Act 1999* (Cth) (**EPBC Act**) on 10 May 2021.

On 12 July 2021, the Minister for the Environment (**Minister**) determined that the Project was a controlled action.

The assessment of the controlled action is being undertaken by an Environmental Impact Statement (**EIS**) under the *Environmental Management and Pollution Control Act 1994* (Tas) pursuant to the assessment bilateral agreement with Tasmania.

As a result of a refinement of MMG's approach to the works included in the controlled action, and the necessity to undertake preliminary works to progress the environmental assessment of the Project, MMG requests that the Minister accept a variation of the action proposed in referral EPBC 2021/8909 pursuant to Section 156A of EPBC Act.

In this letter MMG addresses the requirements of regulation 5.08 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth), namely:

- a) details of the proposed variation to the proposed action;
- b) the reasons for the proposed variation;
- c) how the impacts of the proposed variation on matters of national environmental significance (**MNES**) compare with those of the original proposal;
- d) if applicable, the impacts of the proposed variation on MNES not considered in the referral or assessment of the original proposal;
- e) if applicable, alternatives, mitigation measures and offsets to compensate for additional impacts MNES.

BACKGROUND

MMG operates the MMG Rosebery mine near the township of Rosebery, on the west coast of Tasmania. Two existing tailings storage facilities (**TSF**) within the existing mine footprint are nearing the end of their lifespan and a new TSF (the proposed action) is proposed to the south west of the mine and Rosebery township. The proposed action includes:

- A new TSF, including dam, spillway, polishing pond and outfall;
- Borrow pits to provide material for embankment construction;
- A pipeline network to deliver tailings from the processing operations to the crest of the TSF embankment for

deposition;

- A pipeline bridge to span the east-west width of Lake Pieman, from an abutment adjacent to the existing Pieman Pump Station, to support the pipeline, pedestrian access and potentially power and light vehicles; and
- A pump station.

The original proposal was referred to the Department of Agriculture, Water and the Environment on 10 May 2021. The proposal was declared a controlled action on 12 July 2021 with the relevant controlling provisions being threatened species and threatened communities.

In particular, the Statement of Reasons for Decision concluded that the proposed action was likely to have a significant impact on the following Matters of National Environmental Significance:

- Tasmanian Forests and Woodlands dominated by Black Gum or Brookers Gum (*Eucalyptus ovata* / *E. brookeriana*) ecological community – listed as Critically Endangered
- Tasmanian Wedge-tailed Eagle (*Aquila audax fleayi*) - Endangered
- Tasmanian Devil (*Sarcophilus harrisi*) - Endangered

The original proposal concluded that the proposed action may significantly impact other listed threatened species including, but not limited to, the following:

- Spotted-tailed Quoll – (*Dasyurus maculatus* (Tasmanian population)) – vulnerable
- Masked Owl (Tasmanian) (*Tyto novaehollandiae castanops*) – vulnerable
- Native Wintercress (*Barbarea australis*) – endangered
- Swift Parrot (*Lathamus discolor*) – critically endangered
- Scrambling Groundfern (*Hypolepis distans*) – endangered.

DETAILS OF THE PROPOSED VARIATION TO THE ACTION

This variation seeks to remove some preliminary works and activities necessary to facilitate the assessment of the action from the scope of referral 2021/8909.

Under the proposed variation, the following preliminary works and activities, as variously referenced in Table 1, are proposed to be excluded from the scope of the original proposal:

- Geotechnical drilling and sampling to assess the design requirements and suitability of the site for the TSF. Test pitting is also planned to collect larger samples.
- Geotechnical drilling and sampling to determine the quantity, quality and availability of construction material from the proposed borrow areas. Sampling of the final selection of borrow areas will be required to better determine the geotechnical properties of the construction materials. This will inform the final location and size of borrow areas, along with engineering design for the TSF.
- Geochemical investigations of tailings material to ensure the design of the facility and management of the tailings materials is undertaken appropriately and in accordance with Australian National Committee on Large Dams (ANCOLD) and other relevant Guidelines.
- Geotechnical and geochemical investigations to characterise the potential for acid formation in construction material.
- Construction of tracks required to provide access for preliminary works and activities. It is noted this may require the clearance of vegetation.
- Investigations to assist with the identification of suitable access roads for the proposed action (in both construction and operation).
- Survey of existing and proposed access road and pipeline routes (including for the proposed bridge across the Pieman River) and any other proposed disturbance areas, which have yet to be surveyed.
- Targeted botanical survey for late summer orchids.
- Additional natural values surveys and mapping to better define potential occurrences, vegetation communities and habitat as well as nests and dens. These will help inform the proposed overall disturbance and avoidance footprints and their relative proportions. These will include surveys of potential access tracks.

REASONS FOR PROPOSED VARIATION

The proposed variation requests that certain preliminary works and activities required for investigation and feasibility are excluded from the referred action. The variation is required so that information can be collected through preliminary investigations to develop the engineering design (such as refining the location and design of the TSF and required borrow pits). Information about the location and refined design parameters is also necessary to inform and progress the assessment of potential environmental impacts. These preliminary investigations will need to be undertaken and completed to enable a proper assessment of the TSF.

MMG considers that these preliminary works and activities that are proposed to be excluded from the original proposal are unlikely to have a significant impact on MNES. MMG intends to submit a separate referral for the preliminary works excluded from the original proposal.

These preliminary works and activities are required to be undertaken before all development plans and environmental assessments can be completed, and are required in order for MMG to prepare an Environmental Impact Statement (EIS). The EIS is necessary for the proposal to be assessed by:

- the Tasmanian EPA; and
- the Minister under the Bilateral Agreement between the State of Tasmania and the Commonwealth.

The activities which are proposed to be removed from the original referral are listed in Table 1, with proposed amendments.

Table 1 Changes proposed as a result of exclusion of investigations and associated preliminary works

Referral reference	Original paragraph in 10 May 2021 Referral	Investigation Works to be excluded from Proposed Action		Proposed variation
		Activity	Detail	Amended paragraph
Section 1.2 Page 1, para 7.	<i>Borrow pits: To yield sufficient volumes of material for embankment construction for the life of the facility, a number of potential borrow pits will be investigated, with the preferred area(s) being chosen based on their location, material volumes, material quality, and potential to minimise environmental impacts. Appendix A, Fig3 indicates three potential borrow pit areas, with priority given to Areas 1 and 3 to minimise ground disturbance;</i>	Geotechnical investigations to determine suitability of material for TSF dam wall construction	Rock core drilling and test pitting in the location of the proposed borrow areas shown in the original proposal	<i>Borrow pits: To yield sufficient volumes of Material for embankment construction for the life of the facility, a number of potential borrow pits will be investigated, will be obtained from one or more of the potential borrow pits identified, with the preferred area(s) being chosen based on their location, material volumes, material quality, and potential to minimise environmental impacts. Appendix A, Fig3 indicates three potential borrow pit areas, with priority given to Areas 1 and 3 to minimise ground disturbance;</i>
Section 1.2 Page 1, para 8.	<i>Pipeline network: A network of pressurised tailings delivery pipelines will be required to deliver the tailings from the processing operations to the crest of the TSF embankment. Tailings will be distributed along the TSF embankment for deposition. Appendix A, Fig2 indicates the most likely alignment for the tailings delivery pipeline, which may be modified following the results of topographical survey, potential ecological values and potential co-alignment with access tracks to minimise ground disturbance. Appendix A, Fig4 indicates the potential coalignment of pipeline and access tacks, which will be confirmed following further investigations;</i>	Co-location of proposed access tracks and pipeline	The original proposal included construction of access tracks and tailings pipeline within a combined alignment.	<i>Pipeline network: A network of pressurised tailings delivery pipelines will be required to deliver the tailings from the processing operations to the crest of the TSF embankment. Tailings will be distributed along the TSF embankment for deposition. Appendix A, Fig2 indicates the most likely alignment for the tailings delivery pipeline, which may be modified following the results of topographical survey, potential ecological values and potential co-alignment with access tracks to minimise ground disturbance. Appendix A, Fig4 indicates the potential coalignment of pipeline and access tracks, which will be confirmed following further investigations;</i>
Section 1.2, Page 2, para	<i>Access tracks: Predominantly for the construction phases of the proposed activity,</i>	Access tracks	Land survey and natural values surveys are	<i>Access tracks: Predominantly For the construction phases of the proposed activity, the existing access track</i>

Referral reference	Original paragraph in 10 May 2021 Referral	Investigation Works to be excluded from Proposed Action		Proposed variation
		Activity	Detail	Amended paragraph
2.	<i>the existing access track off Helilog Road will be used wherever possible, with minor modifications undertaken to improve road safety and plant manoeuvrability. However, additional tracks will be required for both construction and operational phase requirements. Indicative pipeline and access tracks are shown in Appendix A, Fig4, with final alignments to be confirmed following the results of topographical survey, potential ecological values and potential co-alignment with the tailings delivery pipeline to minimize ground disturbance. If the function of the pipeline bridge is extended to permit light vehicle (LV) access, the track network from the dam to the Pieman Road will be minimal during the operational phase;</i>		required to confirm the location of proposed permanent and construction roads	<i>off Helilog Road will be used wherever possible, with minor modifications undertaken to improve road safety and plant manoeuvrability. However, additional tracks will be required for both construction and operational phase requirements. Indicative pipeline and access tracks are shown in Appendix A, Fig4, with final alignments to be confirmed following the results of topographical survey, potential ecological values and potential co-alignment with and will, if possible be co-aligned with the tailings delivery pipeline to minimise ground disturbance. If the function of the pipeline bridge is extended to permit light vehicle (LV) access, the track network from the dam to the Pieman Road will be minimal during the operational phase;</i>
Section 1.2 Page 2, para 6	<i>The TSF embankments will be constructed primarily of rock fill and glacial material. Rock fill will be sourced from one or more of the borrow options indicated in Appendix A, Fig3. Subsurface geotechnical investigations will determine the quantity, quality and availability of construction material from the proposed borrow pits. Construction material will be subjected to an initial screening process, and a bulk geotechnical and geochemical sampling procedure. This will assess its suitability for its placement in and around the various structures of the proposed facility.</i>	Geotechnical investigations to determine suitability of material for TSF dam wall construction	Rock core drilling and test pitting in the location of the proposed borrow areas, shown in the original proposal.	<i>The TSF embankments will be constructed primarily of rock fill and glacial material. Rock fill will be sourced from one or more of the borrow options indicated in Appendix A, Fig3. Subsurface geotechnical investigations will determine the quantity, quality and availability of construction material from the proposed borrow pits. Construction material will be subjected to an initial screening process, and a bulk geotechnical and geochemical sampling procedure. This will assess its suitability for its placement in and around the various structures of the proposed facility.</i>
Section 1.2 Page 2, para	<i>The tailings material, that will be strategically discharged within the footprint of the dam</i>	Geochemical	Testing of tailings material to ensure the design of	<i>The tailings material, that will be strategically discharged within the footprint of the dam embankments, has the</i>

Referral reference	Original paragraph in 10 May 2021 Referral	Investigation Works to be excluded from Proposed Action		Proposed variation
		Activity	Detail	Amended paragraph
8	<i>embankments, has the potential to cause environmental harm if managed and stored inappropriately. Extensive geochemical investigations have and will be undertaken on tailings material to ensure the design of the facility and management of the tailings materials is undertaken appropriately and in accordance with ANCOLD and other relevant Guidelines. The design of the TSF and tailings management processes will include stability and self-sustaining requirements of the TSF's eventual closure and rehabilitation.</i>	investigations	the TSF is appropriate for containment.	<i>potential to cause environmental harm if managed and stored inappropriately. Extensive geochemical investigations have and will be undertaken on tailings material to ensure the design of the facility and management of the tailings materials is undertaken appropriately and in accordance with ANCOLD and other relevant Guidelines. The design of the facility will be in accordance with ANCOLD and other relevant Guidelines to ensure appropriate management of tailings. The design of the TSF and tailings management processes will include stability and self-sustaining requirements of the TSF's eventual closure and rehabilitation</i>
Section 3.3 Page 10, para 2 and 3.	<i>Detailed geotechnical and geochemical investigations are being undertaken to characterise the potential for acid formation of each of the profile materials.</i> <i>These results will assist with required management provisions around topsoil stripping, possible stockpiling and reuse for rehabilitation works.</i>	Geochemical investigations	Testing materials to determine suitability for use in construction, predominantly to determine whether proposed materials have acid forming properties.	<i>Detailed geotechnical and geochemical investigations are being undertaken to characterise the potential for acid formation of each of the profile materials.</i> Acid forming materials will not be used in construction of the TSF embankment or associated infrastructure. <i>These results will assist with required</i> Standard management provisions around topsoil stripping, possible stockpiling and reuse for rehabilitation works will be implemented throughout the development.
Section 3.7 Page 10, para 1	<i>The Site area comprises predominantly unaltered native vegetation, bisected by unsealed access roads and localized small areas associated historically with mining exploration and more recently utilised for site development investigations.</i>	Site development investigations	General investigations undertaken previously in accordance with conditions issued by Mineral Resources Tasmania (MRT).	<i>The Site area comprises predominantly unaltered native vegetation, bisected by unsealed access roads and localised small areas associated historically with mining exploration and more recently utilised for previous site development investigations.</i>
Section 3.11 Page 11	<i>The land is currently only being used for mineral exploration purposes and background</i>	Background studies	Refers generally to investigations relevant to	<i>The land is currently only being used for mineral exploration purposes and background studies for the</i>

Referral reference	Original paragraph in 10 May 2021 Referral	Investigation Works to be excluded from Proposed Action		Proposed variation
		Activity	Detail	Amended paragraph
	<p><i>studies for the proposed development.</i></p> <p><i>Known proposed uses relate only to this proposal as outlined in Section 1.2, potential future mining activities underground and forestry activities during vegetation clearance for the proposed project.</i></p>		the proposed action.	<p>proposed development.</p> <p><i>Known proposed uses relate only to this proposal as outlined in Section 1.2, potential future mining activities underground and forestry activities during vegetation clearance for the proposed project.</i></p>

COMPARISON OF IMPACTS OF THE PROPOSED VARIATION ON MNES WITH THE ORIGINAL PROPOSAL

The proposed variation to exclude preliminary works and activities from the original proposal does not alter the nature of the development or the location of associated impacts. The proposed variation does not introduce any new or additional impacts or physical changes to the overall Project footprint.

The Project was determined to be a controlled action due to having the potential to impact on listed threatened species and communities (s18 & s18A). The controlling provisions for the assessment of the Project as varied will remain the same as those specified for the original proposal.

The impacts of the Project are to be assessed by EIS, and this assessment will assess the impacts of the controlled action in accordance with these controlling provisions.

MMG has undertaken a self-assessment of the impacts of the excluded works and intends to submit a separate referral in relation to the excluded works.

IMPACTS OF THE PROPOSED VARIATION ON ANY MNES NOT CONSIDERED IN THE ORIGINAL PROPOSAL (IF APPLICABLE)

This is not applicable, given the proposed variation will not result in any new or different matter of MNES being affected by the action.

ALTERNATIVES, MITIGATION MEASURES AND OFFSETS TO COMPENSATE FOR ADDITIONAL IMPACTS ON MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE (IF APPLICABLE)

This is not applicable, given there are no additional impacts on MNES. The variation involves the exclusion of certain activities from the original proposal.

CONCLUSION

The proposed variation does not change the overall potential for impacts to MNES as a result of the proposed action, when compared to the original referral. Conducting the preliminary works activities in advance of the proposed action is necessary to inform the final development design and material sources, as well as to enable assessment of impacts on MNES. The exclusion of these preliminary activities from 2021/8909 is consistent with the requirements of the EPBC Act.

We believe this proposed variation satisfies the requirements of the EPBC Act and the Regulations, and request that the original proposal be varied accordingly.

Yours faithfully

General Manager (Acting)

Rosebery Mine