

**Before the Expert Panel appointed
under the Fast-track Approvals Act 2024**

Under the Fast-track Approvals Act 2024
(Act)

And

In the Matter of an application for approvals by
Matakanui Gold Limited to establish,
operate, rehabilitate and ultimately
close an open pit and underground
gold mining operation known as the
Bendigo-Ophir Gold Project

**Statement of Evidence of
Jeroen Johannes Franciscus Lurling
on behalf of Matakanui Gold Limited in
response to Section 53 Feedback**

Terrestrial Ecology

Dated: 17 April 2026

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INTRODUCTION

1. My name is Jeroen Johannes Franciscus Lurling.

Qualifications and Experience

2. I am currently employed as Senior Ecologist at RMA Ecology and have held that position since 2022.
3. I hold a Bachelor of Science in Ecology from the University of Otago, a Postgraduate Diploma in Wildlife Management from the University of Otago, and a Graduate Diploma in Geography from the University of Canterbury.
4. I have 24 years' professional experience as an ecologist, working in central government, local government and consulting, in Australia, the British territory of Tristan da Cunha, and New Zealand.
5. My previous work experience includes nine years of consulting, primarily to Tasman District Council in the role of wetland ecologist, and a variety of roles employed by the Department of Conservation over a period of fifteen years, primarily in avifauna survey and endangered species monitoring and management.
6. I am involved in a number of Fast-track Approvals applications. My specialist expertise includes avifauna and wetlands values and effects assessment.
7. This statement is given as part of Matakanui Gold Limited's (**MGL**) response to comments on the Bendigo-Ophir Gold Project (**BOGP**) made under Section 53 of the FTA. This statement relates to avifauna values and wetland values, for which I am the primary responder, as well as selected aspects of avifauna and wetland effects, for which I am secondary responder. This statement responds to specific comments raised by:
 - (a) Ms Chelsea McGaw, representing Forest and Bird (**F&B**) in consultation with Francesca Cunninghame in relation to avifauna
 - (b) E3 scientific (**E3S**) representing Otago Regional Council (**ORC**) in relation to various ecological matters, primarily in Appendix 41 of ORC comments
 - (c) Dr Nick Head, representing the Environmental Defence Society (**EDS**) in relation to all ecological matters
 - (d) Dr Giejsztowt, representing the Department of Conservation
 - (e) Ms Sally Gepp et. al. and Ms Jane McArthur, representing the New Zealand Fish and Game Council (**Fish and Game**)

My original findings are provided in full in the:

- (a) Technical documents section of the substantive application (Part B), namely:
 - (i) B.12 RMA Ecology Wetland Values Assessment (RMA Ecology 2025a)
 - (ii) B.14A RMA Ecology Avifauna Values Assessment (RMA Ecology 2025c)
2. The technical reports entitled B.12 RMA Ecology Wetland Values Assessment, and B.14A RMA Ecology Avifauna Values Assessment have not been informed by any other technical reports. The ecology-related reports of the Substantive Application should be read in conjunction for a fulsome understanding of the ecological values at the Project Site, the effects on those values, and the management of those effects.
3. I have prepared this statement in the limited time available for MGL to respond to comments under the Act., I have focused my response on the issues I consider most material. The absence of comment on other matters should not be taken as agreement or acceptance. If the Panel requires elaboration on any of the matters raised in this statement, I am available to provide further information on request.
4. Although this is not an Environment Court proceeding, my confirmation of compliance with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023 is included in Substantive Application Document A0.2B.

SPECIFIC RESPONSE TO COMMENTS

Sufficiency of Values Assessments

5. Invited parties generally consider that avifauna values have been appropriately surveyed and values assessed.
6. DOC's expert witness, Dr Giejsztowt, states in her evidence; "*Overall, on the advice of my colleagues, I consider there to be good surveys for avifauna. The list of species identified at the site, and the populations of those species, appear to be appropriate.*"

7. Francesca Cunninghame, on behalf of F&B “*considered that the RMA Ecology Ltd Avifauna Values Assessment has been conducted and completed to a good level of thoroughness, noting that the authors recognise where most of the limitations are. The authors accurately presented both the species and their status/values and considered it appropriate that they went with the highest threat ranking.*”
8. E3S (ORC) states “*The ecological values have largely been surveyed and characterised as would be expected.*” However, the review then comments on several aspects of bird and wetland survey sufficiency, addressed in the following paragraphs.
9. E3S (ORC) considered that while targeted call playback was undertaken, the use of Acoustic Recording Devices (**ARDs**) would have provided more reliable detection of cryptic wetland species due to extended deployment periods and therefore concluded that survey methods were insufficient to confidently exclude their presence. E3S also noted that bittern can utilise degraded habitats and queried the rationale for not using ARDs.
10. In response, the Project Site (Including the Direct Disturbance Footprint (**DDF**) and the Surrounding Landscape (**SL**), together comprising the Ecological Study Area (**ESA**), lacks suitable breeding habitat for bittern and crake species (e.g. open water margins and tall dense cover such as raupō or tall rushland), comprising instead low, seasonally variable sedge vegetation with limited surface water. I understand fish, a primary food source for Australasian bittern, are largely absent in surrounding watercourses (and completely absent in the DDF), further reducing suitability. Any potential bittern or crake presence is therefore likely to be transient and related to opportunistic foraging rather than breeding, and bittern booming (a breeding behaviour) would be unlikely. Manual walk-through playback and visual surveys are very likely to detect bittern in the low vegetation present, while ARDs require vocalisations.
11. For spotless and marsh crake, while they may vocalise outside strict breeding contexts, their occupancy and calling rates are closely tied to permanently wet, densely vegetated habitat and are expected to be low in such marginal conditions. Manual acoustic playback surveys are also more likely to elicit responses from these low-calling species, and in my experience are better suited to detecting the low-volume contact calls these species use in addition to their primary calls.

12. I consider the survey methods used to be sufficient and appropriate to exclude the regular or resident presence of Threatened and At Risk wetland avifauna, although occasional transient or over-flying individuals cannot be entirely ruled out. While ARDs may add some limited value when used alongside manual playback surveys, they are not considered the most suitable primary method to detect cryptic wetland species in this context.
13. I accept that avifauna species with a low likelihood of presence - whether due to a lack of detection in surveys and/or the absence of suitable or sufficiently high-quality feeding or breeding habitat - or species with only historic records in the wider area (e.g. within 5–10 km), may appropriately be identified as 'potentially present' in accordance with Environment Institute of Australia and New Zealand (**EIANZ**) guidelines. However, the application of professional ecological judgement is required to establish a reasonable and ecologically meaningful threshold for inclusion, as most species will have some theoretical possibility of occurrence.
14. In applying this judgement, I have had regard to survey coverage and effort, species detectability, habitat suitability, and the ecological context of the ESA. On this basis, species have not been included where their likelihood of presence is considered to be negligible or very low, including where any occurrence would most likely be limited to rare, intermittent, or transitory overflight, without meaningful use of the site for feeding, breeding, or shelter.
8. Even if cryptic wetland species (such as bittern or crane) were conservatively included as 'potentially present', with ecological values of high or very high based on their conservation status, where such species are only likely to use the ESA infrequently, and not for critical life-history functions such as breeding or regular foraging, the magnitude of effect would be negligible. Accordingly, the overall level of effect would remain low, even for species of high or very high ecological value and is expected to be positive after creation of offset wetlands with ideal habitat features. This does not materially alter the conclusions of the Alliance Ecology B.08 - Assessment of Ecological Effects.
15. E3S (ORC) also commented on the potential to miss plant species within the wetland surveys. While species accumulation curves provide an indication that the majority of species have been identified, and surveys were undertaken in several seasons including spring and autumn. I agree it is entirely possible and expected that not all species within all wetlands were identified, due to the large scale of the site, and seasonal flowering.

16. E3S (ORC) noted that the Regional threat status of little shag and black shag have been updated, to Regionally Vulnerable and Regionally Endangered, respectively, and that ecological value should be Very High for both. I agree with this comment. This is reflected in the assessment of the magnitude of net loss outcomes presented by Dr Matt Baber as an appendix to his statement of evidence in response to comments.
9. Ms Cunninghame (F&B) raised the potential for highly mobile species, such as Australasian bittern and South Island pied oystercatcher, to fly over the site at night, and noted the absence of nocturnal monitoring for these species. I acknowledge the possibility of these species flying over the site. However, the lack of detections during daytime surveys (including periods around dawn and dusk), together with the limited plausible mechanisms of effect associated with the proposal (i.e. potential disturbance rather than mortality), indicate that potential effects are likely to be low. By comparison, developments such as wind farms require comprehensive flight path monitoring, including at night, due to the higher risk of more than minor effects, through bird strike.
10. E3 Scientific (ORC) has raised valid points regarding wetland value scorings in Table 8 of the wetland report. These warrant discussion during expert conferencing.
11. Several other submitters have raised general concerns regarding alleged deficiencies or errors in the broader suite of ecological values assessments for the BOGP. However, their evidence does not appear to include specific commentary substantiating these concerns in relation to avifauna. In the absence of such specific evidence, these general statements provide limited assistance in evaluating the adequacy of the assessments for avifauna values.

Avifauna effects

17. Dr Nick Head (EDS) stated “*Overall, potential adverse effects of the proposal on avifauna are likely to be lesser for avifauna than other fauna, given their mobility and large range sizes*” and “*Residual impacts are likely to be managed effectively through the predator management that is proposed.*”
18. I concur with this assessment. Within the comments I have reviewed, there is a relative paucity of commentary regarding potential effects on avifauna compared to other ecological values. This likely reflects both the relatively limited significance of the site for native avifauna and the inherent mobility of bird species. While threatened species are present, overall indigenous avifauna values are relatively constrained.

19. Consequently, potential adverse effects are assessed as low in magnitude and are considered capable of being effectively managed through standard mitigation measures, including predator control and targeted habitat enhancement.
20. Jenny Webster-Brown, on behalf of EDS, raised concerns regarding potential toxicity in the two pit lakes proposed to remain in perpetuity, particularly in relation to trace metals, sulphides, the degree of uncertainty and the risk of lake stratification and overturn (“flipping”). Concerns were also raised regarding transport of contaminants downstream in the Shepherds Creek catchment, primarily through seepage and sediment transfer.
21. Sally Gepp et al. and Ms Jane McArthur (Fish and Game) mirror these concerns, particularly in reference to the high game bird and indigenous bird life values of Bendigo Wildlife Management Reserve, downstream of the site.
22. While I have not reviewed the detailed water quality and toxicity reports prepared for the project, and do not claim specialist expertise in environmental chemistry, these comments relate to an area of overlap in ecology and environmental chemistry. The information presented in Ms Webster-Brown’s evidence indicates a potential risk to avifauna on and off site. Elevated concentrations of trace metals such as arsenic are known to bioaccumulate through aquatic food webs and can adversely affect birds via dietary exposure, including impacts on growth, reproduction, and survival. I make no judgement on the presence or level of potential contaminants nor the level of effect on avifauna in relation to BOGP. Refer to the Statement of Evidence of Dr Paul Weber which includes pit lake modelling.
23. If there is a more than minor level of effect, potential actions to reduce the attractiveness of the pit lakes to waterfowl include modifying the shallow margin where the haul road enters. This could be achieved by, for example, placement of large rocks to limit avifauna access to shallow water and sediment and to discourage the establishment of marginal vegetation. Uptake of this potential mitigation, if deemed necessary, remains available to MGL.
24. Appropriate assessment, monitoring, and management of contaminant pathways beyond the site are key for protecting downstream avifauna and wetland values. Detailed comment on the potential for these effects is outside the scope of my expertise.
25. Several submissions, including that of Dr Leanne Morgan (representing EDS), and Alexandra Badenhop (representing ORC) raise concerns around uncertainty of water table drawdown effects on wetlands and of the efficacy of flow augmentation on impacted downstream wetlands. These are comments for the hydrologist to address, and are beyond the scope of my evidence and my expertise.

Overall effects management

26. A number of submitters have identified the need for appropriate financial mechanisms to address long-term environmental risks and uncertainties. I agree with this position, particularly in relation to potential effects on wetlands and their ongoing management and consider that mechanisms such as a bond and a non-wasting endowment fund (or similar instrument) are important components.



Jeroen Johannes Franciscus Lurling

17 April 2026