

MATAKANUI

GOLD LIMITED



Avifauna Management Plan

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Glossary

Specific terms	
AEE	Assessment of Ecological Effects Report
AEE	Assessment of Environmental Effects Report
AMP	Avifauna Management Plan
ARAMP	Ardgour Restoration Area Management Plan
BOGP	Bendigo-Ophir Gold Project ('the Project')
BOMP	Biodiversity Outcome Monitoring Plan
DDF	Direct disturbance footprint
DOC	Department of Conservation
ESA	Ecological Study Area
EMPF	Ecological Management Plan Framework
HIMP	Habitat Impact Management Plan
LERMP	Landscape and Ecological Rehabilitation Management Plan
MPMP	Mammalian Pest Control Management Plan
MSMP	Matakanui Sanctuary Management Plan
SEQE	Suitably Experienced and Qualified Ecologist(s)
General terms	
Biodiversity	The variety of life on Earth at all its levels, from genes to ecosystems, and can encompass the evolutionary, ecological, and cultural processes that sustain life
Ecology	The study of the relationships between living organisms, including humans, and their physical environment.
Habitat clearance	Earthworks and/or vegetation clearance
Site description	
Ardgour Sanctuary	An area of Ardgour Station, north-northwest of the DDF, in which 38 ha of pest exclusion fencing is proposed
Ardgour Rise	A realignment of part of Thomson Gorge Road, via Ardgour Station (Ardgour Rise), planned to provide public access through to the Manuherikia Valley
Bendigo Sanctuary	An area of Bendigo Station, west of the DDF (and north of Bendigo Historic Reserve), in which 29 ha of pest exclusion fencing is proposed

Specific terms

Matakanui
Sanctuary

Collectively the Ardgour and Bendigo Sanctuaries, comprising approximately 67 ha of pest-exclusion fenced areas.

1. INTRODUCTION

1.1. Plan objective, purpose and scope

The objective of the Avifauna Management Plan (**AMP**) is to avoid or minimise adverse ecological effects on indigenous avifauna species during construction and operation of the Bendigo-Ophir Gold Project (**BOGP**) and the purpose of this AMP is to set out the methods for achieving this objective.

1.2. Integration with the Ecological Management Plan Framework

The Ecological Management Plan Framework (**EMPF**) outlines the responsibilities of the Environment Manager, Suitably Experienced and Qualified Ecologist(s) (**SEQE**), and other key personnel in implementing ecological management plans. This AMP aligns with the EMPF by detailing specific measures to avoid or minimise for adverse effects on avifauna. It draws on the EMPF's principles of ecological effects management and contributes to the overall biodiversity outcomes through habitat enhancement and monitoring protocols.

Table 1 below provides a summary of habitat effects avoidance and minimisation measures for avifauna and the primary management plans relevant to each. The EMPF should be read in conjunction with this AMP to understand the broader ecological context, interlinkages with other plans (e.g., Habitat Impact Management Plan (**HIMP**), Landscape and Ecological Management Plan (**LERMP**), Ardgour Restoration Area Management Plan (**ARAMP**), Matakanuni Sanctuary Management Plan (**MSMP**), Biodiversity Outcome Monitoring Plan (**BOMP**) and the integrated approach to ecological restoration and biodiversity enhancement across the BOGP footprint and surrounding landscape.

Table 1: Summary of habitat effects management measures and associated condition(s) and management plans relevant to each.

Avifauna management measures		Primary management plan (s)
Before habitat impacts		
Pre-impact avifauna nest surveys (all native avifauna)		AMP
Onsite construction method refinements		HIMP
Physical delineation of disturbance area		HIMP
During habitat impacts		
Ecological oversight of habitat clearance and clearance management measures		AMP, HIMP
Ecological rehabilitation of bird habitat within the DDF		
Ecological rehabilitation of habitat for avifauna and other biodiversity values		LERMP
Offset/compensation for residual adverse effects on avifauna		
Mammalian pest management, weed management and habitat enhancement for avifauna and other biodiversity values within offset/compensation sites, including the MRZ, ARA, and the Matakanui Sanctuaries		LERMP, ARAMP and MSMP
Biodiversity outcome monitoring of avifauna to verify stated outcomes and to inform adaptive management where required		
Avifauna monitoring before and after commencement of ecological rehabilitation and offset/compensation measures within MRZ, ARA and the Matakanui Sanctuaries		BOMP

These proposed conditions are addressed through the implementation, monitoring and reporting procedures set out in this AMP and interlinking plans described in the EMPF.

This AMP has also been prepared to support the Wildlife Act Approval application.

2. OVERVIEW OF VALUES, EFFECTS AND EFFECTS MANAGEMENT

2.1. Avifauna values

At least 28 species have been detected or are potentially present within the Direct Disturbance Footprint (**DDF**) and immediately surrounding landscape (Avifauna Values Assessment, RMA Ecology, 2025).

Table 2 lists the native avifauna species potentially present within the Ecological Study Area (**ESA**) with their national and regional threat status.

Table 2: Native avifauna within the Ecological Study Area

(* = detected in the DDF in surveys)

Species	Common name	National threat status ¹	Regional threat status ²
Kārearea*	New Zealand falcon – eastern form*	Threatened, nationally vulnerable	Threatened, regionally vulnerable
Mātātā/Kōtātā	South Island fernbird	At Risk, declining	Regionally At Risk, declining
Pīhoihoi*	New Zealand pipit*	At Risk, declining	Regionally not threatened
Māpunga*	Black shag*	At Risk, relict	Threatened, regionally endangered
Tauhou*	Silvereye*	Not threatened	Regionally At Risk, declining
Miromiro*	Tomtit*	Not threatened	Not threatened (but locally uncommon)
Tōrea*	South Island Pied Oystercatcher*	At Risk, declining	Threatened, regionally vulnerable
Kawau paka	Little shag	At Risk, relict	At Risk, relict
Tarapiroe	Black-fronted tern	Threatened, nationally endangered	Threatened, regionally endangered

¹ Robertson H.A., Baird K.A., Elliott G.P., Hitchmough R.A., McArthur N.J., Maken T.D., Miskelly C.M., O'Donnell C.F.J., Sagar P.M., Scofield R.P., Taylor G.A., and Michel P. (2021). Conservation status of birds in Aotearoa New Zealand, 2021. New Zealand Threat Classification Series 36. Department of Conservation, Wellington. 43 pp.

² Jarvie, S., McKinlay, B., Palmer, D., Rawlence, N. J., Thomas O. (2025). Regional conservation status of birds in Otago. Otago Regional Council, Otago Threat Classification Series, 2025/4

Species	Common name	National threat status ¹	Regional threat status ²
Tarāpuka	Black-billed gull	At Risk, declining	Threatened, regionally vulnerable
Kāhu	Australasian harrier*	Not threatened	Not threatened
Kuruwhengi	Australasian shoveler	Not threatened	Not threatened
Korimako	Bellbird	Not threatened	Not threatened
Kākāpū	Black swan	Not threatened	Not threatened
Riroriro	Grey warbler	Not threatened	Not threatened
Tētē-moroiti	Grey teal	Not threatened	Not threatened
	Mallard x grey duck hybrid*	Not threatened	Not threatened
Pīwakawaka	New Zealand fantail	Not threatened	Not threatened
Kererū	New Zealand pigeon	Not threatened	Not threatened
Pāpango	New Zealand scaup	Not threatened	Not threatened
Pūtangitangi	Paradise shelduck	Not threatened	Not threatened
Poaka	Pied stilt	Not threatened	Not threatened
Pūkeko	Pukeko	Not threatened	Not threatened
Kōtare	Kingfisher	Not threatened	Not threatened
Karoro	Southern black-backed gull	Not threatened	Not threatened
	Spur-winged plover	Not threatened	Not threatened
Warou	Welcome swallow	Not threatened	Not threatened
Matuku moana	White-faced heron	Not threatened	Not threatened

2.2. Potential effects on native avifauna

The BOGP is expected to result in loss of up to 610 hectares of indigenous and exotic vegetation/habitat. The actual and potential impacts of the Project on native avifauna are described in the Assessment of Ecological Effects Report (**AEE**), and in summary include:

- Habitat loss through clearance, soil stripping, earthworks and deposition of overburden, waste-rock or tailings;
- Creation of habitat edge effects and altering the composition and health of adjacent vegetation (i.e. habitat degradation) which may affect habitat suitability;
- Potential harm or injury to nesting birds, eggs or chicks;

- Ongoing disturbance effects through noise, vibration (including blasting) dust and lighting;
- Potential risk of electrocution for kārearea/eastern falcon from transmission lines, and to kawau paka/little shag and māpunga/black shag where those lines are near wetlands;
- Direct mortality through collision, particularly for falcon which may collide with high fences, windows, and power lines;
- Ongoing effects on water quality in wetlands through sedimentation or contamination

Vegetation removal during the breeding season (August to March inclusive) could result in adverse effects on indigenous birds, most importantly kārearea/eastern falcon and pīhoihoi/pipit. Breeding birds could lose adults, eggs or chicks that are present in areas where vegetation is cleared. New Zealand pipit generally nest in long grasses or tussock and use the BOGP site for nesting if suitable habitat is available. Kārearea/ eastern falcon do not build nests but make a scrape on the ground, under a rocky outcrop into which they lay eggs.

2.3. Proposed effects management

Effects on native avifauna have been avoided or minimised to the extent practicable through:

- General refinement of the DDF through detailed design and construction methodology where possible and as detailed in the Assessment of Environmental Effects (**AEE**) and AEcE reports;
- Habitat impact protocols to minimise the potential for effects outside the disturbance footprint HIMP;
- Bird surveys to confirm the locations of nesting native birds;
- Nest protection protocol during bird breeding season from August – March inclusive; and
- Measures to insulate transmission lines, and to provide underground cabling where possible, as set out in the Aurora Standards (AE-NR01-S).
- To address residual adverse effects on avifauna that cannot be avoided or minimised, measures to remedy, offset and compensate for effects are set out in the relevant management plans including:
 - The Landscape and Ecological Rehabilitation Management Plan (**LERMP**)
 - The Mammalian Pest I Management Plan (**MPMP**)
 - The Ardgour Restoration Area Management Plan (**ARAMP**)
 - The Matakanui Sanctuary Management Plan (**MSMP**)

These plans detail the location, type and magnitude of remediation and offset or compensation measures proposed. Additionally, the approach for monitoring the outcomes of effects management for avifauna is set out in the Biodiversity Outcome Monitoring Plan (**BOMP**).

2.4. Pre-clearance surveys

The following protocols will be undertaken to avoid or minimise effects on all nesting native bird species within the DDF:

- Bird nest surveys will be undertaken during bird breeding (August to March) by **the SEQE within 5 working days** of vegetation/habitat clearance within any given location. The purpose of these surveys is to confirm that no native nests that include breeding adults, eggs or chicks are present within the disturbance footprint.
- If no active nests are found, vegetation and habitat within the surveyed area may be cleared.
- If native nesting birds are detected within the disturbance footprint, the following protocols will be implemented:
 - The location of the nest will be recorded using GPS.
 - If indigenous breeding birds, eggs or chicks are present, then habitat clearance within the following exclusion setbacks must be halted until chicks have fledged:
 - within 200m for kārearea/eastern falcon
 - within 50m for pipit and other Threatened or At Risk bird species (Table 2 above).
 - within 30m for any other native species.

These setback distances may be altered depending on the recommendations during site surveys by the SEQE.

- The exclusion setback zone is to be marked clearly with temporary cordoning for the attention of construction workers to ensure personnel do not disturb the birds.
- The SEQE is required to monitor the nest and confirm when chicks have fledged and vegetation/habitat within the exclusion zone can be cleared.

3. INADVERTENT NATIVE BIRD INJURY OR DEATH

The following steps will be implemented if any injured or dead native nesting birds are found during vegetation clearance per Wildlife Act Authority Permit:

- The SEQE will notify the Grantor at the earliest opportunity within 24 hours after an injured or dead bird is found.
- If the Grantor requests it, any dead native bird of a Threatened, At Risk, or Data Deficient species shall be sent to a Wildlife Postmortem Service for necropsy.
- The body is to be chilled if it can be delivered within 24 hours, or frozen if longer than 24 hours to deliver.
- Appropriate measures shall be undertaken to minimise further bird deaths.
- Injured native birds found during vegetation clearance operations will be taken to a suitably qualified vet as soon as possible for assessment and treatment. Injured birds will be wrapped in a cloth or towel and kept in an appropriate portable enclosure (i.e., a clean, well-ventilated plastic container) under the direction of the SEQE to ensure the animal is handled appropriately until the native bird(s) can be assessed and treated.
- Native birds assessed by the vet or alternative specialist as uninjured, or otherwise in suitable condition for release, will be transported back to site and released into non-impacted habitat suitable for the species being relocated.
- Euthanasia of an injured native bird shall only be undertaken under direction from Department of Conservation (**DOC**) or a suitably qualified vet.

4. ACCIDENTAL DISCOVERY PROTOCOL (THREATENED SPECIES)

As part of site inductions, all contractors and staff will be made aware of the possibility of the 'Threatened' and 'At Risk' native bird species being present and will be supplied with photographs of these birds and their nests, so they know what they look like.

Contractors and staff will also be briefed regarding the accidental discovery protocol and all personnel are responsible for notifying their supervisor upon the discovery of any 'At Risk' or 'Threatened' bird, on the same working day as the discovery. The supervisor will inform the SEQE or Environment Manager either of whom will then contact the SEQE.

Any 'At Risk' or 'Threatened' species not otherwise identified in this management plan will be reported to the DOC Local Area Manager and iwi by the SEQE. All discoveries are to be recorded in a database with an incident register and log of actions taken for each discovery.

If additional regionally or nationally 'At Risk' or 'Threatened' species not addressed by this AMP are discovered at any stage in the lifetime of the project, these species will be incorporated into this AMP.

5. COMPLIANCE MONITORING AND REPORTING

Compliance or incident reports described in this section will be submitted to Council.

5.1. Annual avifauna management compliance report

The annual avifauna management compliance monitoring report shall detail the year's activities from 1 September to 31 August and shall be submitted in November of each year. It shall include:

- Overview maps showing the location of nesting birds
- Information on nesting bird survey effort, avoidance procedures and fledging outcomes including the number and timing of successful fledging or otherwise.
- Recommendations for improvements to effects avoidance and minimisation protocols (where required).

5.2. Incident monitoring and reporting

The Regulator will be notified as soon as practicable but no more than five working days after an unscheduled event resulting in injury or death to nesting birds.

A subsequent investigation report will be provided to the Regulator within 30 days and include the following information:

- The causes of the incident, the emergency response measures (if applicable), and the response proposed to avoid a recurrence of the issue;
- An assessment undertaken by a SEQE which details any adverse effects of the exceedance; and
- Proposed measures to address effects.

All incidents will be tracked to resolution through the BOGP compliance management system.