MATAKANUI

GOLD LIMITED

Lizard Management Plan

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Glossary

Specific terms	
AEcE	Assessment of Ecological Effects Report
AEE	Assessment of Environmental Effects Report
ARAMP	Ardgour Restoration Area Management Plan
BOGP	Bendigo-Ophir Gold Project ('the Project')
BOMP	Biodiversity Outcome Monitoring Plan
CODC	Central Otago District Council
DDF	Direct disturbance footprint
DOC	Department of Conservation
~~EMPF~~	~~Ecological Management Plan Framework~~
HIMP	Habitat Impact Management Plan
LERMP	Landscape and Ecological Rehabilitation Management Plan
LMP	Lizard Management Plan
MSMP	Matakanui Sanctuary Management Plan
NZTCS	New Zealand Threat Classification System
ORC	Otago Regional Council
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

Specific terms	
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
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 Lizard Management Plan (**LMP**) is to avoid or minimise adverse ecological effects on indigenous lizards during construction and operation of the Bendigo-Ophir Gold Project (**BOGP**) and the purpose of this LMP is to set out the methods for achieving this objective.

This LMP is intended to serve as the primary 'one-stop shop' for the management of effects on indigenous lizards associated with the Project. It draws together, and cross-references, the measures applied across the full effects management hierarchy (avoidance, minimisation, remediation, offset and compensation) so that the way in which effects on lizards are managed can be understood from this single document.

Consistent with this purpose, detail of lizard remediation, offset and compensation is not duplicated in this LMP but is provided in the related management plans, namely the Landscape and Ecological Rehabilitation Management Plan (LERMP), the Mammalian Pest Control Management Plan (MPMP), the Ardgour Restoration Area Management Plan (ARAMP), the Matakanui Sanctuary Management Plan (MSMP) and the Biodiversity Outcome Monitoring Plan (BOMP). For each effect, this LMP identifies the avoidance and minimisation measures delivered directly through this plan and cross-references the plan(s) in which remediation, offset and compensation measures are detailed.

~~The Ecological Management Plan Framework (**EMPF**) provides an overview of the procedures and methods to address adverse effects on ecological values associated with the construction and operation of the BOGP. The EMPF also provides roles and responsibilities for this LMP.~~

All native lizards on site are protected by the Wildlife Act 1953 and the Resource Management Act 1991 (RMA) which affords protection to significant habitats of indigenous fauna.

Table 1 below provides a summary of effects management measures for lizards and the associated conditions and primary management plans relevant to each measure.

[Placeholder: Additional conditions relating to the application of mātauranga Māori and exercise of kaitiakitanga.]

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

Lizard management measures	Primary management plan (s)
Before habitat impacts	
Engage, report to, and seek feedback from mana whenua	Not applicable
Undertake pre-clearance lizard salvaging within the Direct Disturbance Footprint (DDF) and relocation into the Ardgour Restoration Area (ARA)	**LMP**
During habitat impacts	
Construction assisted lizard salvaging within the DDF and relocation into the Ardgour Restoration Area	**LMP**, HIMP
Ecological rehabilitation of habitat for lizards and other biodiversity values	LERMP
Offset/compensation for residual adverse effects on lizards	
Mammalian pest management, weed management and habitat enhancement for lizards and other biodiversity values within offset/compensation sites, including the MRZ, ARA, and the Ardgour and Bendigo Sanctuaries	LERMP, ARAMP and MSMP
Biodiversity outcome monitoring of lizards to verify stated outcomes and apply adaptive management where required	
Lizard monitoring before and after commencement of ecological rehabilitation and offset/compensation measures within the DDF ecological rehabilitation sites and within the MRZ, ARA, and Ardgour and Bendigo sanctuaries	BOMP

1.2. Consent conditions

MGL has proposed the following land use consent conditions as part of its application.

Condition No.	Proposed Condition	Note
C56	The consent holder must implement the Lizard Management Plan ("LMP") certified as part of the approval of the BOGP pursuant to Section 81 of the Fast-track Approvals Act 2024 (or as amended in accordance with relevant conditions), and which forms part of the consents.	

	The objective of the LMP is to detail the methods that will be used to avoid or minimise adverse ecological effects on native lizards during construction and operation of the BOGP.	
C57	To achieve the objective set out in Condition C56, the LMP must include, as a minimum: a. Salvaging footprint and timing, including: (i) Salvaging will be undertaken in all identified areas of high or moderate-value lizard habitat (shown in Figures 1 and 2 in the LMP), and only undertaken when the temperature exceeds 12 degrees Celsius from 1 September to 30 April inclusive; and (ii) Areas exempt from lizard salvaging are shown in Figure 3 in the LMP. b. Salvaging methods and level of effort, including: (i) Site-specific and progressive pre-clearance manual salvaging to include a minimum 2,330 person hours across 2 ha of high-value habitat and 231 ha of moderate-value habitat (combined) (as shown in Figures 1 and 2 in the LMP); (ii) A minimum of 102,000 lizards to be salvaged including: i. 70,000 McCann's skink; ii. 2,000 Tussock skink; and iii. 30,000 Kawerau gecko; (iii) Construction-assisted salvaging for large cover objects (e.g. rocks or boulders) within the DDF that cannot be manually searched within high value lizard habitat (shown in Figures 1 and 2 in the LMP); *Advice Note: Efforts will be undertaken to minimise the time between salvage and clearance activities but, in any case, will not exceed 6 months between salvage and clearance activities.* c. Data collection and recording, including: (i) Identification number for each individual;	

	(ii) Date and time of capture and weather conditions; (iii) Capture methodology; (iv) Capture location (GPS coordinates), capture methodology, habitat type; (v) Species, sex (reproductive status for females), age class and Snout to Vent Length (SVL) and tail status (regenerating versus original tail) and overall health and condition; and (vi) A minimum of one photograph of each captured lizard will be taken, including at least one photograph showing the dorsal surface clearly. d. Handling, transport and release protocols, including: (i) Transportation of all lizards to comply with the *Animal Welfare (Transport within New Zealand) Code of Welfare (2018)* or subsequent amendments; (ii) Pending approval by DOC, a protocol for toe-clipping salvaged lizards to help monitor the success of relocation; (iii) Transit and storage container requirements including providing ventilation, maintaining the ambient temperature, providing vegetation/leaf litter in containers and where practicable limiting storage time in containers to 4 hours; e. Relocation site requirements, including: (i) All salvaged lizards to be relocated into the Ardgour Restoration Area, which is subject to pest control reduction measures as set out in the Mammalian Pest Management Plan; (ii) Lizards to be relocated into suitable species-specific micro-habitats within the relocation site(s) within the Ardgour Restoration Area,	

with each relocated lizard to be placed within suitable habitat as determined by the project herpetologist; and

(iii) Relocation data collection, including data and time of release, weather conditions, location (GPS coordinates) and habitat type and release photograph(s);

f. Deployment of habitat features for lizards within rehabilitated areas of the DDF, with locations, clustering and shapes approved by a landscape architect as consistent with the natural landscape. The features will include (as a minimum):

Habitat feature	Deployment
Rock stacks	480 rock stacks (average of 1 per ha, totalling ≥1 ha) must be placed within the mined ecological rehabilitated area once sites are ready for ecological rehabilitation
Rubble pits	To be created at a minimum average density of 1 per 5 ha. Rubble pits are defined as shallow excavated features (nominally 0.5 metre depth x 10 metres x 4-6 metres wide), filled with ~20-40 millimetre diameter rock, to provide habitat for small terrestrial invertebrates

<table>
<tr><td></td><td></td><td></td><td>while excluding larger mammalian predators.</td><td></td><td></td></tr>
<tr><td></td><td></td><td>Vegetation</td><td>Rock stacks and rubble pits over 480 ha within the DDF must be revegetated in accordance with specifications set out in the Landscape and Ecological Rehabilitation Management Plan required under Condition C13 (Common Conditions), with the expectation that all of this habitat excluding the 7.5 ha of proposed wetland rehabilitation will support lizards.</td><td></td><td></td></tr>
<tr><td></td><td colspan="4">g. Inadvertent lizard injury or death protocols;
h. Incidental discovery protocol for Threatened species, including staff induction requirement, reporting hierarchy, data collection and report requirement, and discovery of new species protocol; and
i. Compliance monitoring and reporting requirements.

Advice Note: To survey, capture, relocate, kill or otherwise disturb lizards, an FTAA Wildlife Approval is required.</td><td></td></tr>
<tr><td>C58</td><td colspan="4">An annual Lizard Compliance Monitoring Report must be prepared, as part of the Annual Monitoring and</td><td></td></tr>
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	Compliance Report required by Condition C12, and must include: a. Confirmation that lizard effects avoidance and minimisation protocols were followed in accordance with the LMP and HIMP, and associated proposed conditions, including: (i) description of methods and results relating to lizard salvaging operations; (ii) Confirmation that salvage targets were met for each species; (iii) Maps illustrating where avoidance or minimisation measures were undertaken; b. Confirmation that relocation site habitat restoration and enhancement measures were achieved prior to release of lizards for relocation; c. Recommendations for potential changes to improve the effectiveness of lizard management; and d. Representative photos showing evidence of minimisation measures being undertaken along with evidence of release and relocation site restoration and enhancement measures.	
C59	Any updates to the LMP must be prepared by a suitably qualified and experienced herpetologist.	

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

~~1.2.~~1.3. Wildlife Act Authority Requirements

All indigenous lizards are legally protected under the Wildlife Act 1953 (Wildlife Act).

This LMP addresses the following matters:

- Handling of lizards (including non-threatened, 'At Risk' and 'Threatened' lizard species);

- Capture, relocation and release of lizard species from the BOGP Direct Disturbance Footprint ('**DDF**'); and
- Inadvertent lizard injury and death; and accidental discovery (threatened species).

Wildlife Act Authority reporting requirements will be adhered to as specified below.

~~Separate approval will be sought for the translocation of additional lizard species not currently present in the landscape (Otago skink and Jewelled skink) into habitat enhancement areas.~~ The introduction of threatened lizard species not currently present in the landscape (such as grand skink, Otago skink and jewelled gecko) into predator-exclusion fenced areas is not part of this application and is not relied upon as a residual effects management (offset or compensation) measure, because such actions cannot presently be guaranteed or conditioned. Should ~~the Applicant~~MGL elect to include the introduction of these species, it will commit to developing and implementing species-specific translocation plans in partnership with mana whenua and the Department of Conservation (Te Papa Atawhai), with that commitment secured through the consent conditions.

1.4. Roles and responsibilities

Delivery of, and compliance with, the LMP is the responsibility of the Environment Manager, who liaises with the Mine Manager, Suitably Experienced and Qualified Ecologist(s) (SEQE), Site Engineers, and habitat clearance and earthworks contractors as required. The Environment Manager holds overall accountability for implementation of and compliance with all ecology management plans, including this LMP.

The responsibilities of the Environment Manager include, but are not limited to: reading and understanding the LMP; facilitating a project start-up meeting with the SEQE, Mine Manager, Site Engineer(s) and contractors before clearance and earthworks commence; contacting the SEQE a minimum of four weeks before any area within the DDF is scheduled for clearance; maintaining clear communication regarding changes to the works schedule; briefing new personnel on their responsibilities under the plans; inviting mana whenua to participate in vegetation or habitat salvage and relocation so that kaitiakitanga responsibilities and cultural concerns are addressed; developing, implementing and monitoring site clearance procedures; and ensuring personnel inductions include a module on ecological effects management roles and responsibilities.

All personnel working on site are responsible for alerting the ~~SEQE~~Environment Manager and the Mine Manager to the discovery of any potentially native lizards not otherwise identified in the LMP.

2: ASSESSMENT AGAINST SALVAGING PRINCIPLES

The salvaging approach addresses the nine principles of salvage[1] for lizards as relevant to Wildlife Act Authority applications, as set out in Table 2:

Table 2: Assessment against WAA salvaging principles

WAA Salvaging principles	Assessment
Principle 1: Lizard species' values and site significance must be assessed at both the development and receiving sites:	Principle addressed as detailed in the Assessment of Ecological Effects (AEcE) (Alliance Ecology 2025).
Principle 2: Actual and potential development-related effects and their significance must be assessed:	Principle addressed as detailed in the AEcE
Principle 3: Alternatives to moving lizards must be considered.	Principle addressed. No alternative locations for the BOGP are practicable. Alternative sitings and design options for various components of the BOGP were considered as described in the Assessment of Environmental Effects (for instance stockpile and infrastructure locations were refined to reduce impacts on rock outcrops which provide habitat refugia). Efforts were then made to avoid or minimise impacts on lizards and other biodiversity values as far as practicable, as detailed in the AEcE. Ecological rehabilitation proposed within 480 ha of the DDF[2] will re-instate high quality lizard habitat in time. Residual adverse effects on lizards are

[1] https://www.doc.govt.nz/globalassets/documents/about-doc/concessions-and-permits/wildlife-research-permits/lizard-salvage-and-transfer-nz.pdf

[2] The 480 ha area of the DDF to be rehabilitated excludes the majority of the two permanent pit lakes (which are deep and steep-sided) and pit walls, and permanent infrastructure (roads and water treatment facilities).

WAA Salvaging principles	Assessment
	addressed via compensation actions as detailed in the relevant management plans (LERMP; ARAMP; MSMP).
Principle 4: Threatened lizard species require more careful consideration than less-threatened species	Principle addressed via efforts to manage residual effects that cannot be fully (& demonstrably) reduced through avoidance or salvaging and relocation. In addition to salvage and relocation, efforts also include the elimination of introduced mammalian predators within the Matakanui Sanctuaries and deployment of rock stacks and creation of rubble pits that serve as habitat refugia for lizards. This work will enable the potential re-introduction of nationally Threatened or At Risk lizard species such as the Otago skink.
Principle 5: Lizard salvage, transfer and release must use the best available methodology	Principle addressed in part via methods proposed for salvaging, transfer and release into sites that have been enhanced for lizards through mammalian pest control to reduce predation pressure. In terms of salvage effort, it is standard practice for salvage programmes to attempt to salvage as many native lizards from a site as is practicably feasible, using a range of methods. In our experience, the intensity of salvage effort increases with the extent and complexity of lizard habitat present, and for large projects, often involves a range of passive, active and tool/machine-driven methods. This approach has been consistently applied by Alliance Ecology (and specifically Dr M Baber) when applying for Wildlife Act Authorities from the Department of Conservation (**DOC**) across a wide range of projects. DOC has repeatedly supported this approach, as evidenced by the Authorities granted under Dr Baber as the technical lead to undertake lizard salvage over an approximately 20-year period. However, for the BOGP, an alternative approach is required due to: • Project delivery constraints: Year-round clearance is required to maintain the critical path. To restrict habitat clearance to warmer months when salvaging is appropriate (e.g. September to April inclusive) would compromise project feasibility.

WAA Salvaging principles	Assessment
	• Scale: The sheer scale of effort needed to apply a 'best practicable effort' programme over 610 ha is prohibitive from a project timeline and resource standpoint. To salvage as many possible lizards from the project footprint and claim negligible direct harm to lizards via habitat clearance, an estimated 100 – 200 person hours of salvaging effort (or 61,000 – 102,000 person hours of effort) would be required. This equates to 40 – 80 person years and excludes processing time and transfer and release at relocation sites • Population size and relocation limitations: At a rough estimate, the project footprint is estimated to support 450,000 or more native lizards (Lizard Values Report, RMA Ecology 2025). Salvaging and relocating all individuals is not feasible, as there are no available sites of sufficient capacity to both provide protection and avoid adverse effects on resident populations through intra- or inter-specific competition. In light of above, the options that have considered in developing this Lizard Management Plan are: 1. Do nothing. This reflects the known level of lizard salvage in similar nearby environments that have recently been developed into agricultural land on the lower slopes of the Dunstan Mountains along Bendigo Loop Road, where no lizard salvage was undertaken within cushionfield and kanuka shrubland; or 2. Downscale from a 'nil or negligible harm' outcome to a 'best practicable/reasonable effort' approach. Under this scenario, some mortality of lizards is inevitable due to the limits of feasible salvage effort, with the following priorities applied: a) Prioritise salvage effort for the salvage and relocation of Kawarau gecko and tussock skink (both At Risk species) and not salvage McCann's skink (Not Threatened). b) Prioritise salvage within moderate- and high-quality habitats, with only cursory salvage undertaken in lower quality habitats, limited to patches where lizards are certain to be present and are easily salvaged. This Lizard Management Plan adopts option 2b as the foundation for salvage and relocation for this project. Efforts will focus on salvaging approximately 10 – 30% of lizards,

~~WAA Salvaging principles~~	~~Assessment~~
	~~which will be released into 1263 ha of enhanced habitat, as described further below.~~ ~~We note that, while good outcomes are expected for salvaged lizards, we have applied the conservative assumption that this level of effort does not materially reduce the severity of effects. As such, substantive ecological rehabilitation and evidence-based residual effects management efforts are proposed to ensure net positive outcomes for native lizards.~~
~~Principle 6: Receiving sites and their carrying capacity must be suitable in the long term.~~	~~Principle addressed via the vast areal extent of the Ardgour Restoration Area relocation site (1,263 ha) and the corresponding scale of habitat enhancement measures to reduce predation pressure via mammalian predator control.~~
~~Principle 7: Monitoring is required to evaluate the salvage operation.~~	~~Principles addressed via a comprehensive biodiversity outcome monitoring programme as set out in the Biodiversity Outcome Monitoring Plan. Determination of the success of salvaging and relocation operations is contingent on approval to toe-clip salvaged individuals so they can be distinguished from resident lizards at relocation sites.~~
~~Principle 8: Reporting is required to communicate outcomes of salvage operations and encourage process improvements.~~	~~Principle addressed through reporting requirements as set out in this plan. As above, determination of salvage outcomes is contingent on the approval to toe-clip salvaged individuals.~~
~~Principle 9: Contingency actions are required when lizard salvage and transfer activities fail.~~	~~Principle addressed. Contingency actions are required if lizard salvage and transfer activities do not meet specified objectives and targets as detailed in the Biodiversity Outcome Monitoring Plan. As above, determination of salvage outcomes is contingent on approval to toe-clip salvaged individuals.~~

~~3.~~2. OVERVIEW OF EFFECTS ON LIZARDS AND EFFECTS MANAGEMENT

Detailed information on lizard values, effects and effects management is provided in the Assessment of Ecological Effects Report (**AEcE**) (Alliance Ecology 2025) and summarised below.

~~3.1.~~2.1. Lizard values

In total three native lizard species are present within the BOGP site (Table 3), based on habitat suitability, confirmed presence during field surveys, and known presence in the general area.

Orange-spotted gecko, grand skink and Otago skink are unlikely to be present on site. Nevis skink, jewelled gecko and Lakes skink are considered highly unlikely to be present, but their presence cannot be ruled out; the accidental discovery protocol set out below accounts for their unlikely potential presence.

The DDF is expected to support in excess of 500,000 lizards and additional lizards will be affected beyond the DDF across the wider area of impact. The most numerous species on site are McCann's skink and Kawarau gecko, followed by southern grass skink.

All three species are Absolutely Protected under the Wildlife Act 1953. Kawarau gecko is more vulnerable to extinction, both regionally and nationally, than the other two species.

Table 3: Native lizards observed during surveys, and species expected to be present, including within the DDF (*=detected).

Common name	Scientific name	Threat status	Relative abundance
Southern grass ~~Tussock~~ skink*	*Oligosoma chionochloescens*	Nationally and regionally At Risk - declining	Common but not abundant throughout the DDF
Kawarau gecko*	*Woodworthia Cromwell*	Nationally and regionally At Risk - declining	Abundant throughout the DDF
McCann's skink*	*Oligosoma maccanni*	Not Threatened	Abundant throughout the DDF

Other lizard species cannot be ruled out; however the presence of additional species is considered unlikely based on the extensive level of effort applied to surveys within the DDF and wider landscape.

~~3.2.~~2.2. Effects on lizards

Potential adverse effects on lizards relating to mining construction may include:

- Vegetation and habitat loss through habitat clearance and earthworks.

- The creation of habitat edge effects, altering the composition and health of adjacent vegetation (i.e. habitat degradation), which may affect habitat suitability for flora and fauna.
- Direct mortality or injury to lizards, which may be harmed during habitat clearance or earthworks activities.
- Habitat fragmentation and isolation due to the loss and reduction of available habitat types and by reducing the ability for lizards to disperse across the landscape for food, shelter, and breeding purposes, i.e. severing or partially severing access to habitats that would otherwise be suitable.
- Disturbance associated with construction-related noise and vibrations or dust.

Potential long-term ongoing adverse effects on lizards during mining operations may include:

- Ongoing habitat degradation associated with habitat loss, edge effects and fragmentation, which permanently affect movement of some species, with possible effects on meta-population dynamics and increased vulnerability to local extinction.
- Ongoing disturbance effects, particularly on habitat margins/edges, through noise, dust, artificial lighting and blasting.
- Mortality or injury associated with operations.

2.3. E~~O~~verview of effects management

~~3.2.1.~~2.3.1. Effects avoidance and minimisation

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

- General refinement of the DDF through detailed design and construction methodology where possible (detailed in the Assessment of Environmental Effects (**AEE**);
- Refining stockpile and infrastructure locations to minimise impacts on rocky outcrops —which provide lizard refugia—as described in the AEcE.
- Seasonal constraints on vegetation and habitat clearance within the 233 ha of 'high' and 'moderate' value habitat for lizards which is earmarked for salvaging (Appendix A, Figure 1 and 2). Within these locations, salvaging will be undertaken during warmer months (1 September to 30 April inclusive) when lizards are more active and less cryptic. In some instances, these habitats will be cleared later during colder months, outside lizard salvaging season, resulting in a time lag between salvaging and habitat clearance.
- Habitat clearance protocols within all potential lizard habitat to minimise the potential for effects outside the direct disturbance footprint (detailed in the Habitat Impact Management Plan (**HIMP**); and

- Habitat clearance salvage and relocation operations for all three legally protected lizard species as set out in this LMP.
- In addition to the avoidance and minimisation measures above, indirect and operational effects on lizards identified in the AEcE are managed as follows:
  - Dust is managed through the ~~Project dust controls~~Air Quality Management Plan (for example watering of haul roads and exposed surfaces, and management of dust-generating activities in high winds) as detailed in the HIMP and ~~associated air-quality controls~~AQMP, which serve to limit habitat-degradation effects on lizard habitat beyond the footprint.
  - Lighting is managed through the measures recommended in the Light Management Plan, the Outdoor Lighting Report and the Lighting / Dark Sky conferencing outcomes, including adoption of dark-sky Environmental Zone A1, use of low-output, warm-coloured (≤3,000 K) LED lighting for the majority of lighting, downward-oriented and shielded fixtures that limit horizontal and vertical light spill, and automated timing, dimming and motion-sensor controls. This LMP cross-references those measures and provides for monitoring of their implementation.

2.3.2. Ecological rehabilitation

Ecological rehabilitation will be implemented across approximately 480 ha of the 610 ha DDF (excluding the permanent pit lakes, pit walls and permanent infrastructure), as set out in the LERMP. Rehabilitation will re-establish a mosaic of indigenous habitats that provide foraging, refuge and breeding resources for lizards, including tussock grassland, native scrubland, taramea herbfield and shrubland, scattered rock and rock-tor habitat, and wet areas and wetlands (wetland, wetland margins, and swale-drain margins). Lizard habitat features salvaged and stockpiled from the DDF (tussock, individual rocks, and rock refugia created as rock stacks and rubble pits) will be deployed within the rehabilitation areas in accordance with Appendix 2 and Appendix C of the LERMP. The rationale, design and configuration requirements for rock stacks and rubble pits are detailed in Appendix C of the LERMP and cross-referenced here; these features are intended primarily to provide lizard habitat, and also to support invertebrates, plants and birds.

McCann's skink (a habitat generalist) and Kawarau gecko (a habitat opportunist that uses side-cast rock on road margins, rock piles, rock anchors, loose rock shards and rock tors) are expected to re-establish on the rehabilitated surface. Southern grass skink is more specialised and will require a greater investment in rehabilitation to provide adequately densely vegetated, damp environments. For the purposes of the effects accounting, and because of uncertainty and time lags, ecological rehabilitation is conservatively assumed to achieve only around 20% of a no-net-loss outcome for lizards over the 35-year period. The experts hold differing views on the certainty of rehabilitation success and habitat re-creation; this uncertainty is managed through the

targets, triggers and contingency framework and the biodiversity outcome monitoring set out below.

2.3.3. Offset and compensation

To address residual adverse effects on lizards that cannot be avoided, minimised or remedied, offset and compensation measures are set out in the LERMP, the Ardgour Restoration Area Management Plan (ARAMP), the Mammalian Pest Management Plan (MPMP) and the Matakanui Sanctuary Management Plan (MSMP). These comprise large-scale habitat enhancement and sustained mammalian pest control across the Mine Regeneration Zone (MRZ, 889 ha) and the Ardgour Restoration Area (ARA, 1,263 ha), together with approximately 67 ha of predator-exclusion fenced sanctuaries (38 ha Ardgour and 29 ha Bendigo). Salvaged lizards will be released into pest-exclusion fenced area(s) as the key measure to reduce the residual effects on relocated lizards, as well as the ARA and MRZ.

The proposed sanctuaries are not the most suitable location to generate the best conservation outcomes for southern grass skink, and were assumed in the accounting to provide no value for that species. The sanctuaries as currently proposed are of insufficient scale to fully address the effects of the activity, however largescale predator management and habitat enhancement over a sustained period contribute the reduction in residual effects over the long term.

Release from grazing within the ARA and the fenced areas is expected to improve lizard habitat complexity (for example through increased tussock recruitment). Mammalian pest control and the rodent monitoring described below are provided to manage the risk of the potential increase in mice due to the removal of grazing and mesopredators. The proposed offsetting and compensation measures are not assumed to materially reduce the level of residual effect on the lizard assemblage.

2.4. Targets, thresholds, triggers and contingency (adaptive management)

Biodiversity outcome monitoring for lizards is intended to verify the stated outcomes and to inform adaptive management and/or contingency where required. Performance measures for the lizard effects-management programme and measurable outcomes are detailed in the consent conditions (with the way those outcomes are achieved is detailed in the management plans), including conditions clearly identifying triggers and contingency actions in the event of failure to achieve stated ecological outcomes to reduce the risk of non-achievement. The adaptive-management framework for lizards comprises:

- Stated outcomes / targets: the measurable outcomes (targets) for each lizard species or species group, together with the metrics used to measure them. The stated outcomes are described in the AEcE; the specific targets and metrics for

verifying them will be finalised in the BOMP and itemised in the consent conditions;

- Thresholds / triggers: pre-defined levels of performance (for example occupancy, relative abundance or encounter rate at the release site(s), or mammalian-predator and rodent tracking indices) which, if not met within a specified timeframe, trigger investigation and response;
- Contingency actions: the management responses available if a trigger is reached, which may include increased or modified pest control (including adaptive management for mice), additional habitat enhancement or rock-refugia provision, modification of the release strategy, or other measures identified and
- Review and reporting: reporting of monitoring results against targets, and review of the triggers and contingency actions, through the annual reporting process and the BOMP.

2.5. Biodiversity outcome monitoring

The detailed design of biodiversity outcome monitoring for lizards is set out in the BOMP; this section summarises its purpose and key elements and cross-references the BOMP for the full methodology. Biodiversity outcome monitoring is distinct from the compliance and incident monitoring described below: its purpose is to measure ecological outcomes for lizards over time, to verify the stated outcomes, and to inform adaptive management and/or contingency where required. The programme will specify:

- Metrics: the measures used to assess lizard outcomes (for example species occupancy and distribution, relative abundance and encounter rates, and population trend at the release site(s)), including baseline (before) and post-release (after) measurement;
- Methods: standardised, repeatable survey methods applied before and after release within the ARA and the Matakanui Sanctuaries, recognising that, in the absence of an approved technique to distinguish relocated from resident lizards, monitoring focuses on population-level outcomes rather than the survival of individual relocated lizards;
- Statistical robustness: the monitoring design will be tested (for example through power analysis) to confirm it is sufficiently robust, in both extent and intensity, to detect trends and provide the information intended;
- Frequency, location and analysis: the timing, sites and analytical approach used to detect change and attribute it to management; and
- Reporting and response: reporting of results against targets, linked to the adaptive-management triggers and contingency actions above and in the relevant management plans.

~~To address adverse effects on lizards and other terrestrial biodiversity values that cannot be avoided or minimised, measures to remedy or offset and compensate for effects are set out in the Landscape and Ecological Rehabilitation Management Plan~~

~~(LERMP), the Ardgour Restoration Area Management Plan (ARAMP) and the Matakanui Sanctuary Management Plan (MSMP).~~

3. ~~COLLECTIVELY, THESE PLANS DETAIL THE LOCATION, TYPE AND MAGNITUDE OF REMEDIATION AND OFFSET OR COMPENSATION MEASURES PROPOSED. THE APPROACH FOR MONITORING THE OUTCOMES OF LIZARD EFFECTS MANAGEMENT IS THEN SET OUT IN THE BIODIVERSITY OUTCOME MONITORING PLAN (BOMP).~~ SALVAGING AND RELOCATION PROTOCOLS

The protocols for lizard salvaging and relocation specified below are consistent with standard methodologies from DOC's Inventory and Monitoring Toolbox: Herpetofauna[3] and are commonly used on many construction projects. The methodologies have been adapted in this LMP for local site conditions at the BOGP.

3.1. Assessment against salvaging principles

The salvaging approach addresses the nine principles of salvage[4] for lizards as relevant to Wildlife Act Authority applications, as set out in Table 2:

Table 2: Assessment against WAA salvaging principles

WAA Salvaging principles	Assessment
Principle 1: Lizard species' values and site significance must be assessed at both the development and receiving sites:	Principle addressed as detailed in the Assessment of Ecological Effects (AEcE) (Alliance Ecology 2025).
Principle 2: Actual and potential development-related	Principle addressed as detailed in the AEcE

[3] Lettink, M. (2012). Department of Conservation Inventory and Monitoring Toolbox: Herpetofauna. Department of Conservation, Wellington

[4] https://www.doc.govt.nz/globalassets/documents/about-doc/concessions-and-permits/wildlife-research-permits/lizard-salvage-and-transfer-nz.pdf

WAA Salvaging principles	Assessment
effects and their significance must be assessed:	
Principle 3: Alternatives to moving lizards must be considered.	Principle addressed. No alternative locations for the BOGP are practicable. Alternative sitings and design options for various components of the BOGP were considered as described in the Assessment of Environmental Effects (for instance stockpile and infrastructure locations were refined to reduce impacts on rock outcrops which provide habitat refugia). Efforts were then made to avoid or minimise impacts on lizards and other biodiversity values as far as practicable, as detailed in the AEcE. Ecological rehabilitation proposed within 480 ha of the DDF[5] will re-instate high quality lizard habitat in time. Residual adverse effects on lizards are addressed via compensation actions as detailed in the relevant management plans (LERMP; ARAMP; MSMP).
Principle 4: Threatened lizard species require more careful consideration than less-threatened species	Principle addressed via efforts to manage residual effects that cannot be fully (& demonstrably) reduced through avoidance or salvaging and relocation. In addition to salvage and relocation, efforts also include the elimination of introduced mammalian predators within the Matakanui Sanctuaries and deployment of rock stacks and creation of rubble pits that serve as habitat refugia for lizards. This work will enable the potential re-introduction of nationally Threatened or At Risk lizard species such as the Otago skink.
Principle 5: Lizard salvage, transfer and release must use the best available methodology	Principle addressed in part via methods proposed for salvaging, transfer and release into sites that have been enhanced for lizards through mammalian pest control to reduce predation pressure. In terms of salvage effort, it is standard practice for salvage programmes to attempt to salvage as many native lizards from a site as is practicably feasible, using a range of methods.

[5] The 480 ha area of the DDF to be rehabilitated excludes the majority of the two permanent pit lakes (which are deep and steep-sided) and pit walls, and permanent infrastructure (roads and water treatment facilities).

WAA Salvaging principles	Assessment
	In our experience, the intensity of salvage effort increases with the extent and complexity of lizard habitat present, and for large projects, often involves a range of passive, active and tool/machine-driven methods. This approach has been consistently applied by Alliance Ecology (and specifically Dr M Baber) when applying for Wildlife Act Authorities from the Department of Conservation (**DOC**) across a wide range of projects. DOC has repeatedly supported this approach, as evidenced by the Authorities granted under Dr Baber as the technical lead to undertake lizard salvage over an approximately 20-year period. However, for the BOGP, an alternative approach is required due to: • Project delivery constraints: Year-round clearance is required to maintain the critical path. To restrict habitat clearance to warmer months when salvaging is appropriate (e.g. September to April inclusive) would compromise project feasibility. • Scale: The sheer scale of effort needed to apply a 'best practicable effort' programme over 610 ha is prohibitive from a project timeline and resource standpoint. To salvage as many possible lizards from the project footprint and claim negligible direct harm to lizards via habitat clearance, an estimated 100 – 200 person hours of salvaging effort (or 61,000 – 102,000 person hours of effort) would be required. This equates to 40 - 80 person years and excludes processing time and transfer and release at relocation sites • Population size and relocation limitations: At a rough estimate, the project footprint is estimated to support 450,000 or more native lizards (Lizard Values Report, RMA Ecology 2025). Salvaging and relocating all individuals is not feasible, as there are no available sites of sufficient capacity to both provide protection and avoid adverse effects on resident populations through intra- or inter-specific competition. In light of above, the options that have considered in developing this Lizard Management Plan are: 1. Do nothing. This reflects the known level of lizard salvage in similar nearby environments that have recently been developed into agricultural land on the lower slopes of the

WAA Salvaging principles	Assessment
	Dunstan Mountains along Bendigo Loop Road, where no lizard salvage was undertaken within cushionfield and kanuka shrubland; or 2. Downscale from a 'nil or negligible harm' outcome to a 'best practicable/reasonable effort' approach. Under this scenario, some mortality of lizards is inevitable due to the limits of feasible salvage effort, with the following priorities applied: a) Prioritise salvage effort for the salvage and relocation of Kawarau gecko and southern grass skink (both At Risk species) and not salvage McCann's skink (Not Threatened). b) Prioritise salvage within moderate- and high-quality habitats, with only cursory salvage undertaken in lower quality habitats, limited to patches where lizards are certain to be present and are easily salvaged. This Lizard Management Plan adopts option 2b as the foundation for salvage and relocation for this project. Efforts will focus on salvaging approximately 10 – 30% of lizards, which will be released into 1263 ha of enhanced habitat, as described further below. We note that, while good outcomes are expected for salvaged lizards, we have applied the conservative assumption that this level of effort does not materially reduce the severity of effects. As such, substantive ecological rehabilitation and evidence-based residual effects management efforts are proposed to ensure net positive outcomes for native lizards.
Principle 6: Receiving sites and their carrying capacity must be suitable in the long term.	Principle addressed via the vast areal extent of the Ardgour Restoration Area relocation site (1,263 ha) and the corresponding scale of habitat enhancement measures to reduce predation pressure via mammalian predator control.
Principle 7: Monitoring is required to evaluate the salvage operation.	Principles addressed via a comprehensive biodiversity outcome monitoring programme as set out in the Biodiversity Outcome Monitoring Plan. Toe-clipping is not proposed (in accordance with iwi and animal-ethics recommendations). Determining the success of salvage and relocation requires the ability to distinguish relocated individuals from resident lizards, for which no feasible, culturally acceptable and Department of Conservation-approved marking technique is currently available. Where such a technique becomes

WAA Salvaging principles	Assessment
	available, salvage and relocation performance monitoring will be undertaken. In the interim, population-level outcomes at the release site(s) are monitored through the Biodiversity Outcome Monitoring Plan (BOMP), and the experts intend to continue investigating feasible alternatives for tracking lizards, given that tracking is important to determining contingencies.
Principle 8: Reporting is required to communicate outcomes of salvage operations and encourage process improvements.	Principle addressed through reporting requirements as set out in this plan. As above, individual-level determination of salvage and relocation success is constrained by the absence of an approved method to distinguish relocated from resident lizards; reporting will therefore focus on salvage effort and numbers, and on population-level outcomes at the release site(s) reported through the BOMP.
Principle 9: Contingency actions are required when lizard salvage and transfer activities fail.	Principle addressed. Contingency actions are required if lizard salvage and transfer activities do not meet specified objectives and targets as detailed in the Biodiversity Outcome Monitoring Plan. As above, determination of salvage outcomes is contingent on approval to toe-clip salvaged individuals.

~~4. SALVAGING PROTOCOLS~~

~~The protocols for lizard salvaging and relocation specified below are consistent with standard methodologies from DOC's Inventory and Monitoring Toolbox: Herpetofauna[6] and are commonly used on many construction projects. The methodologies have been adapted in this LMP for local site conditions at the BOGP.~~

~~4.1.~~3.2. Pre-clearance induction

Prior to works commencing, a comprehensive induction will be conducted for relevant contractors, the Environment Manager, and other authorised personnel. This induction will cover the following:

- Lizard species present on the site including representative photographs.
- Where to look out for lizards.
- The Incidental Discovery Protocol and what to do if a lizard is found.

~~[6] Lettink, M. (2012). Department of Conservation Inventory and Monitoring Toolbox: Herpetofauna. Department of Conservation, Wellington~~

- Areas where lizard management will be undertaken.
- The timeframe for associated works.

~~4.2.~~3.3. Salvaging footprint and timing

Lizard salvaging will be undertaken in all High and Moderate value lizard habitat as depicted in Figures 1 and 2. Lizard exemption areas are shown in Figure 3 to enable early earthworks. High value habitat in the form of rocky outcrops and tors constitutes approximately 0.3% (2ha) of the available habitat within the DDF and moderate value habitat constitutes approximately 38% or (231 ha) (RMA Ecology, 2025). The remaining 61.7% is classified as low value lizard habitat that will not be searched.

Salvaging will only be undertaken during warmer months when minimum temperatures exceed 12°C. However, because habitat clearance will be year-round, there may be a time-lag between salvaging and habitat clearance at some sites.

~~4.3.~~3.4. Salvaging methods

Lizards will be salvaged via:

- Pre-habitat clearance manual searching, primarily by flipping rocks which is a highly effective method for all three lizard species.
- Deployment of G-minnows in suitable southern grass skink habitat
- Construction-assisted salvaging in which lizards present under larger boulders within high value habitat that can only be removed by machinery will be captured in accordance with site Health and Safety protocols.

~~4.4.~~3.5. Level of effort

Based on lizard surveys (Lizard Report, RMA Ecology 2025), the expected number of lizards salvaged per hour through manual searching is:

- McCann's skink: up to 32 individuals per person hour with captures highest within taramea herbfield communities, and where shrubland was found to be sparse and included rank grassland or rockland.
- Southern grass skink: up to 0.8 individuals per person hour with captures highest in valley bottoms and other places where ground cover and moisture were most likely to persist over the summer months.
- Kawarau gecko: Up to 14 individuals per person hour with capture rates highest where rock is in scattered piles or tors, with noticeably fewer individuals found in communities that lack rock crevices or other suitable refuges.

A minimum of 2,330 person hours of search effort will be undertaken across the 233 ha of high- and moderate-value lizard habitat, equating to an average of 10 person hours

manual searching per ha. Based on the above estimates, this effort will result in the salvage of up to approximately:

- 76,800 McCann's skink
- 1,800 Southern grass skink
- 32,500 Kawarau gecko.

Person hours will be extended beyond the 2,330 person hours minimum until the following target numbers of lizards are salvaged:

- 70,000 McCann's skink
- 2,000 Southern grass skink
- 30,000 Kawarau gecko.

While difficult to accurately determine the total number of lizards present within the disturbance footprint, it is considered likely that the minimum number of lizards salvaged will represent 10 – 30% of the individuals actually present. Increasing the number of lizards salvaged beyond the proposed target is considered infeasible due to:

- the scale of the project, need for year-round habitat clearance, and the corresponding logistical constraints for salvaging methodologies
- the likelihood of relocation success
- impacts on resident lizards within relocation sites

The constraint that only a proportion of lizards in the footprint will be salvaged—rather than all lizards across the full extent of potential lizard habitat—has been factored into the AEcE. This limitation is a key reason for proposing extensive pest exclusion fences as compensation, as outlined in the MSMP.

~~4.5.~~3.6. Data collection

Each individual lizard salvaged will be assigned a number and the following information will be recorded:

- Date and time of capture and weather conditions;
- Capture methodology;
- Capture location (GPS coordinates), capture methodology, habitat type;
- Sex (reproductive status for females), age class, Snout to Vent Length (**SVL**) and tail status (regenerating versus original tail), and overall health and condition; and
- A minimum of one photograph of each captured lizard, including at least one photograph showing the dorsal surface clearly.

~~4.6.~~3.7. Relocation protocol

This section provides detail on the methods that will be used for lizard transfer and relocation.

~~4.6.1.~~3.7.1. Handling and release protocol

The following steps will be undertaken by the suitably qualified and experienced ecologist (**SEQE**) to ensure appropriate handling of lizards occurs. The transportation of all lizards will comply with the Animal Welfare (Transport within New Zealand) Code of Welfare.[7]

Capture, handling and relocation of lizards will be undertaken in accordance with the following methodologies:

- All field equipment that indigenous lizards may come into contact with (e.g. plastic enclosures, collection bags, scales, etc.) will be sterilised;
- Hand sterilisation will be undertaken;
- ~~Pending approval, salvaged lizards will be toe-clipped to enable determination of relocation success. If toe-clipping is not approved, the success of salvage and relocation operations cannot be determined because relocated lizards cannot be distinguished from resident lizards. Ethical issues with toe-clipping are acknowledged; however, other more humane methods of marking individuals such as micro-branding (Hitchmough et al. 2012) are unreliable in the longer-term and therefore while considered, have been ruled out. Procedures for toe-clipping are as follows:~~ Toe-clipping is not proposed, in accordance with iwi and animal-ethics recommendations. It is acknowledged that, without a reliable means of distinguishing relocated individuals from resident lizards, the success of salvage and relocation cannot be determined at the individual level; other marking methods considered (for example micro-branding; Hitchmough et al. 2012) are unreliable in the longer term. If a feasible, culturally acceptable and Department of Conservation-approved marking or tracking technique becomes available, it will be applied so that salvage and relocation success can be monitored. Tracking of lizards remains important to determining contingencies, and the experts intend to continue investigating suitable alternatives;
- ~~Only a single digit will be removed (3rd digit on the left hind foot) at the interphalangeal joint (between the meta-tarsal and phalanges).~~
- ~~Bleeding from the wound is usually minimal or non-existent; if blood flows from the wound for more than a few seconds, then absorbent material should be used to stop it.~~
- ~~Prior to release, use disinfectant (see above) on the clipping.~~
- Salvaged lizards will be placed in either cloth bags (only during salvage), or in suitable ventilated plastic containers (during transportation). Care will be taken so

[7] Ministry for Primary Industries (2018). Code of Welfare: Transport within New Zealand. MPI, Regulation and Assurance Branch, Wellington 6140

that the bags and containers will be kept at a constant ambient temperature. Vegetation/leaf litter will be added to plastic containers to shelter and protect lizards during transportation;

- Where practical, lizards will be placed into ventilated two-litre plastic containers for no longer than 4 hours for transportation and relocation to the relocation site; and
- Lizards will be released into appropriate habitat suitable for the species being relocated.

Upon release, the following information will be recorded for each lizard:

- Date and time of release and weather conditions;
- Release location (GPS coordinates) and habitat type; and
- Release photograph(s).

~~4.6.2.~~3.7.2. Relocation site

Lizards will be relocated throughout the 1,263 ha Ardgour Restoration Area (**ARA**) at relocation sites that comprise suitable habitat. Almost all habitat across the ARA is suitable based on lizard surveys, albeit to varying degrees.

The scale of the ARA will ensure densities of relocated lizards are appropriately low, with an estimated maximum of 100 lizards per ha to be released across the site. This is expected to keep the number of lizards released relatively low compared to the size of the resident population as indicated by surveys (Lizard report, RMA Ecology 2025). Each relocated lizard will be released by being placed under a separate rock or crevice.

The entire ARA will be subject to mammalian pest control to potentially increase the survival of lizards via a reduction in the predation pressure as described in the Mammalian Pest Management Plan (**MPMP**).

~~4.6.3.~~3.7.3. Deployment of habitat features within the ecological rehabilitation sites

Lizard habitat features salvaged and stockpiled from the DDF will be deployed in the rehabilitation areas once ready, in accordance with Appendix 2 of the LERMP. This will involve the relocation of tussock, individual rocks, and rock refugia created as rock stacks and rubble pits with suitable native plant species.

Table 4 below summarises the methods in Appendix 2, LERMP for relocating these habitat features.

Table 4: Relocation of habitat features into the DDF once ready for ecological rehabilitation

Habitat feature	Deployment

Rock stacks	480 rock stacks (1/ha) will be placed within the mined ecological rehabilitated area once sites are ready for ecological rehabilitation
Rubble pits	To be created at a minimum density of 1 per 5 ha.
Vegetation	480 ha within the DDF will be revegetated with the expectation that all of this habitat excluding the 7.5 ha of proposed wetland rehabilitation will support lizards.

~~5.~~4. INADVERTENT LIZARD INJURY OR DEATH

The following steps will be implemented if any injured or dead lizards are found during lizard salvage as per Wildlife Act Authority Permit (Authorisation no. XXXX-FAU):

- The SEQE will notify the Grantor at the earliest opportunity within 24 hours after an injured or dead lizard is found.
- If the Grantor requests it, any dead lizard of a Threatened, At Risk, or Data Deficient species shall be sent to the appropriate 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 lizard deaths.
- Injured lizards found during salvage will be taken to a suitably qualified vet as soon as possible for assessment and treatment. Injured lizards will be 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 lizard(s) can be assessed and treated.
- Lizards assessed by the vet or alternative specialist as uninjured, or otherwise in suitable condition for release, will be transported to the lizard relocation site in the portable enclosure and released into habitat suitable for the species being relocated.
- Euthanasia of an injured lizard shall only be undertaken at the direction of the SEQE.

~~6.~~5. INCIDENTAL DISCOVERY PROTOCOL (THREATENED SPECIES)

As part of site inductions, all contractors and staff will be made aware of the possibility of the ‘Threatened’, ‘At Risk’ and 'Data Deficient' lizard species being present and will be supplied with photographs so they know what they look like.

Contractors and staff will also be briefed regarding the incidental discovery protocol and all personnel will be made familiar with the lizard recovery and translocation protocols set out below.

Personnel are responsible for notifying their supervisor upon the discovery of any 'At Risk' or 'Threatened' herpetofauna, on the same working day as the discovery. The supervisor will notify the SEQE or Environment Manager.

Any 'At Risk' or 'Threatened' species that is discovered on site and not identified in this management plan, i.e. any species other than Kawarau gecko and southern grass and McCann's skink, will be reported to the Grantor (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.

The incidental discovery protocol is strengthened as set out below, to provide clear stop-work triggers, a requirement to salvage any newly discovered species, and prompt notification to the Department of Conservation. Upon discovery of any lizard species not addressed by this LMP (that is, any species other than the three species known to be present – McCann's skink, southern grass skink and Kawarau gecko – including, but not limited to, Nevis skink, jewelled gecko, Lakes skink, grand skink or Otago skink), the following will apply:

- work in the vicinity of the discovery will stop immediately (a stop-work trigger) and the area will be cordoned, until the SEQE has attended the site and provided direction;
- the Department of Conservation (Grantor) will be notified promptly, and in any case within 24 hours of the discovery;
- any individual of the newly discovered species will be salvaged and relocated by the SEQE to suitable, pest-free habitat, in accordance with the salvage and relocation protocols of this LMP and any direction from the Department of Conservation;
- the newly discovered species will be incorporated into this LMP, and the discovery recorded in the incident register with a log of actions taken; and
- where the discovery indicates a Threatened or At Risk species not previously accounted for, the SEQE will advise whether any review of the effects assessment or effects-management measures is required.

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

Should any novel lizard species be recorded, the SEQE will be engaged to submit the record to the DOC Amphibian and Reptile Distribution Scheme (**ARDS**), to undertake a follow up survey and make recommendations (if any), and to review relevant aspects of this LMP accordingly.

~~7.~~6. COMPLIANCE MONITORING AND REPORTING

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

~~7.1.~~6.1. Annual lizard compliance monitoring report

The annual lizard compliance monitoring report will sit within the overarching Ecology Annual Monitoring Report and shall include:

- Confirmation that lizard effects avoidance and minimisation protocols were followed in accordance with the HIMP and LMP and associated proposed conditions; including:
  - A description of methods and results relating to lizard salvaging operations
  - Confirmation that salvage targets were met for each species
  - Maps illustrating where avoidance or minimisation measures were undertaken
- Confirmation that relocation site habitat restoration and enhancement measures were achieved prior to release of lizards for relocation.
- Recommendations for potential changes to improve the effectiveness of lizard management in relation to the LMP scope.
- Representative photos showing evidence of effects avoidance and minimisation measures being undertaken along with evidence of release and relocation site restoration and enhancement measures.

Annual reporting via the LMP will cease once lizard salvage is complete, and all captured lizards have been relocated to the release site.

The outcomes of LMP implementation will be summarised in a final (post-construction) report submitted to Otago Regional Council (**ORC**) and Central District Otago Council (**CODC**) as part of the ecology reporting requirement.

Results associated with the BOGP programme, which includes monitoring at the lizard relocation release site, will continue to be reported on annually.

~~7.2.~~6.2. Incident monitoring and reporting

The Regulator/Grantor will be notified as soon as practicable but no more than five working days after an unscheduled event associated with habitat clearance. Such events include notable compliance failure that results in adverse ecological effects, or an event that causes vegetation damage on a scale that requires an urgent remedy according to the SEQE to return to compliance with any section of the BOGP ecological management plans and planting programmes.

A subsequent investigation report will be provided to the Regulator/Grantor within 30 working 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.

~~7.3.~~6.3. Wildlife Act Authority monitoring report

Reporting requirements outlined in the Wildlife Act Authority Permit will be adhered to. Lizard capture and relocation data will also be compiled, summarised and submitted to the Grantor's national data repository for lizard records (the Bioweb Herpetofauna database) annually (in August each year). As a minimum, the report will include the following information:

- DOC Wildlife Act Authority number and Project name and location;
- A summary of the species, numbers and age/sex classes of lizards captured and relocated;
- Locations of lizards captured and relocated; and
- Summary of salvage methodologies, effort and success.

The intent is for the annual lizard compliance monitoring report to also meet the reporting requirements outlined in the Wildlife Act Authority.

A.1. Figures

Figure 1: Northern part of DDF (shaded areas) showing gross lizard habitat quality (green = low; orange = moderate, red = high). Large tors are shown as turquoise dots, dense native shrubland is as shown as yellow dots. Only tors and dense shrubland within and adjacent to the DDF are shown – there are a far greater number of these areas outside of the DDF. Not shown are the ca. 300+ smaller tor/ rock areas scattered throughout the DDF

Figure 2: Central and southern part of DDF (shaded areas) showing gross lizard habitat quality (green = low; orange = moderate, red = high). Large tors are shown as turquoise dots, dense native shrubland is as shown as yellow dots. Only tors and dense shrubland within and adjacent to the DDF are shown – there are far greater number of these areas outside of the DDF. Not shown are the ca. 300+ smaller tor/ rock areas scattered throughout the DDF.

Figure 3: Lizard Exempt Clearance Areas