

Response to Comments on the Applicant's Response to RFI 11 (Question 10 – Ecology: Lizards)

Bendigo–Ophir Gold Project | FTAA-2507-1089

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14 September 2026

1. Introduction and scope

This memorandum responds to the feedback received on 7 September 2026 on the Applicant's response to RFI 11, Question 10 (Ecology – Lizards) dated 17 August 2026:

- Further Statement of Dr Mandy Tocher for the Department of Conservation (DOC);
- Memorandum of Counsel for the Otago Regional Council (ORC), incorporating the comments of Ms Trudy Anderson;
- Statement of Evidence of Mr Matthew Dale for Kā Rūnaka; and
- Statement of Dr Geoff Rogers for Sustainable Tarras (paragraphs 56–64).

We record at the outset that the disagreement between the Applicant's lizard experts and the invited party lizard experts is considerably narrower than the volume of comment might suggest. On the central question — whether the revised package materially reduces the magnitude of residual adverse effects on lizards — there is no disagreement. Matakanui Gold Limited's (MGL) RFI 11 response itself states that the refinements are not contended to materially reduce the magnitude of net loss, and that the residual magnitude of net loss for lizards remains High, albeit at the lower end of that category noting that the residual magnitude of net loss will diminish in the long term through the proposed conservation actions. Consistent with our statements in the Lizards Joint Witness Statement (JWS), we consider that larger, better-sited pest-free sanctuaries would be needed to substantially reduce the level of effect by increasing the number and proportion of lizards that could be salvaged and the size of the resident lizard populations that would benefit from the elimination of introduced predatory mammals.

This memorandum sets out the response of MGL lizard experts to the material issues raised, to assist the Panel in its understanding and decision-making. We do not respond to each comment individually; we have instead grouped the issues raised into themes, identifying for each what is agreed and what is in contest, and providing further information where warranted and feasible. Moreover, we have not responded to comments from invited parties that extend beyond the proffered effects management package for lizards, except where MGL has agreed to updates in this regard.

To summarise MGL's position for the Panel's benefit:

- It is agreed that an estimated 600,000 lizards of all species are affected within the Direct Disturbance Footprint (DDF), of which approximately 160,000 are Kowarau gecko and approximately 9,000 southern grass skink; the balance is predominantly McCann's skink, though there is uncertainty around exact numbers (B.15 RMA Ecology Lizard Values Assessment).
- The salvage target at lodgement was 30,000 Kowarau gecko, 2,000 southern grass skink and 70,000 McCann's skink (102,000 lizards in total).
- The revised programme (proposed in MGL's RFI 11 response, 17 August 2026) is the salvage of 7,700 Kowarau gecko and 800 southern grass skink — approximately 26 per cent and 40 per cent respectively of the lodged salvage targets and no McCann's skink; expressed against the affected populations, this equates to approximately 5 per cent of Kowarau gecko and 9 per cent of southern grass skink. All 800 southern grass skink are to be released into the approximately 4 ha of suitable habitat at Battery Hill; the 7,700 Kowarau gecko are to be distributed across both sanctuaries. This aligns with the agreement recorded at paragraph 96 of the JWS that the focus of salvage should be on At Risk lizards, relocated into areas that provide suitable habitat and are pest free, and at paragraph 97 that, salvage of all lizards not being feasible, outcomes should be optimised for those animals that are salvaged.

- The proposed relocation densities are 100 Kowarau gecko per hectare of suitable gecko habitat within the pest exclusion fences, and 200 southern grass skink per hectare across the approximately 4 ha of suitable habitat within the Battery Hill sanctuary.
- These releases will occur into the proposed sanctuaries where the fences have been constructed, the eradication programme has commenced and the mammalian pests have been reduced to near-zero densities, and where the carrying capacity of these areas for lizards has therefore been increased considerably from the outset. For Kowarau gecko this corresponds to an approximately 40 per cent increase relative to an assumed average resident density of 262 per hectare in the Ecological Study Area (ESA). For southern grass skink, this corresponds to approximately a doubling relative to an assumed average density of southern grass skink within suitable habitat. If releases of such numbers were into unimproved habitat (i.e. the existing state habitat across the DDF) then overcrowding would be a concern. However, salvaged lizards will be released into pre-prepared sanctuaries that lack pests and where carrying capacity is considerably increased – as the evidence from the Mokomoko Dryland Sanctuary attests (see information further in this memo).
- The revised pest exclusion fence network comprises the 29 ha Bendigo Sanctuary and 52 ha Battery Hill Sanctuary (which replaces the 38 ha Ardour Sanctuary).
- The newly proposed Battery Hill Sanctuary is larger and has improved habitat quality for lizards due to the presence of TZ4 rock and the 4 ha of suitable southern grass skink habitat.

A summary of MGL's expert position is set out in Table 1 below.

Table 1. Summary of MGL's expert position

Theme	Our position in short
Elements of the revised package	We support the shift to targeted salvage of the two At Risk species, release into pest-exclusion sanctuaries, the substitution of the larger and better-suited Battery Hill Sanctuary, release numbers set by receiving-site capacity, habitat enhancement in advance of release, and the securing of both sanctuaries through the Matakauui Sanctuary Management Plan (MSMP) and conditions. Section 2 sets out why each is an improvement on the approach as lodged, the conservation outcomes expected from them, and where we consider the package is reasonably robust notwithstanding uncertainty.
Adequacy of updated effects management package: sanctuary scale	The approach to effects management is more in line with the invited party experts' recommendations. However, it is acknowledged that the revised effects management package does not adequately address residual effects and does not materially change predicted outcomes in this regard. This is mainly because the scale of the sanctuaries is too small relative to the scale of effect in terms of the proportion of lizards that can be salvaged and relocated into sanctuaries and the scale of benefit associated with the elimination of predation pressure from introduced predatory mammals.
Information gaps and uncertainty in relation to habitat availability and suitability, resident lizard population numbers inside fences and appropriateness of salvage and relocation numbers	Further information is provided below, and we consider that the existing level of information is adequate to support our assumptions and conclusions on this matter. We acknowledge that there is uncertainty around the exact proportion of lizards that will be salvaged and suitable densities. However, we note that there is no way of precisely correlating survey information and actual numbers of lizards present and there is no evidence on the impact of relocated individuals on resident individuals at various densities. This holds true for every project that involves lizard salvaging and relocation operations including those consented and for which DOC approval has been granted.
McCann's skink	We accept that effects on this species are not adequately addressed but note that prioritising the two At Risk species reflects the agreement recorded in the JWS.

Theme	Our position in short
Species identification (southern grass skink versus McCann's skink)	We do not consider this to be a material issue as the likelihood of mis-identification when targeting southern grass skink habitat is low. That said, we do not oppose an independent verification requirement in conditions.
Predator, mouse and rabbit management	Further clarification is provided to address questions related to predator, mouse and rabbit management.
Programme sequencing	Further clarification is provided to address questions and comments around the sequence and timing of salvage and relocation operations and readiness of the pest exclusion fence sanctuaries.
Demonstrability of benefit	We will not be able to distinguish benefits attributable to salvage and relocation success from benefits attributable to the elimination of introduced mammalian predators. Population-level abundance and occupancy within the sanctuaries will nonetheless be monitored against a pre-release baseline.
Further improvements to consent conditions	We consider the 28 August conditions to be an improvement, and that most residual gaps are capable of resolution, which has since occurred to reflect the lizard management regime discussed above.

2. Analysis of the revised package

Before addressing the matters that remain in dispute, we set out the aspects of the revised package that we support, why they represent an improvement on the proposal originally before the Panel, and the conservation outcomes we expect them to achieve. While uncertainty remains in several respects, we consider the revised package provides a more effective approach to lizard management than the package as lodged.

Targeted salvage of the two At Risk species. Salvage effort is now directed to Kowarau gecko and southern grass skink, both nationally At Risk. This reflects the agreement recorded at paragraph 96 of the JWS that the focus of salvage should be on At Risk lizards, relocated into areas that provide suitable habitat and are pest free, and at paragraph 97 that, salvage of all lizards not being feasible, outcomes should be optimised for those animals that are salvaged — which the experts agreed the salvage plan as lodged did not achieve. The improvement is one of effectiveness per unit of effort: fewer animals, of higher conservation concern, moved to a place where they are materially more likely to survive.

Release into pest-exclusion sanctuaries rather than unfenced receiving areas. All salvaged animals are now to be released into mammal-free fenced areas. This reflects paragraph 79 of the JWS, where the lizard experts agreed that all salvaged lizards should be released into a pest exclusion area. It also responds directly to the evidence given by DOC's expert and accepted by MGL's ecologists that long-term survival of lizards released into environments that remain subject to mammalian predation is likely to be lower compared to releasing into suitable habitat within a pest exclusion fence. Removing the principal source of post-release mortality is the single change most likely to convert salvage effort into surviving animals. It is accepted as an improvement by DOC, ORC and Kā Rūnaka.

Substitution of the larger and better-suited Battery Hill Sanctuary. Battery Hill is approximately 52 ha against Ardour's approximately 38 ha, lifting the fenced network from approximately 67 ha to approximately 81 ha. More significant than the area is the habitat it contains: T24 rock habitat for Kowarau gecko, and approximately 4 ha of habitat suited to southern grass skink in the damp soils and wet margins associated with Rise and Shine Creek. Ms Anderson accepts that the Bendigo Sanctuary is likely to contain suitable Kowarau gecko habitat and that Battery Hill contains approximately 4 ha of southern grass skink habitat, which was previously not provided for.

Release numbers set by receiving-site capacity rather than by salvage effort. Under the approach as lodged, salvage numbers were driven by the effort that could be applied within the DDF. Under the revised approach they are set by what the receiving environments can support — 100 Kowarau gecko per hectare of suitable habitat and 200 southern grass skink per hectare. Salvaging more animals than the receiving environment can support will increase mortality and put resident animals at risk alongside the relocated ones.

Habitat enhancement in advance of release and no extended captive holding. Relocation will occur only into areas where the required habitat enhancement and predator management measures have been implemented, such that mammalian pests are eradicated prior to lizard release. Extended captive management is not proposed.

Long-term security of the receiving environments. Predator exclusion, habitat restoration and enhancement, monitoring and adaptive management for both sanctuaries are to be secured through the MSMP and conditions over the life of the Project. The ecological enhancement measures set out in the Ardgour Restoration Area Management Plan continue notwithstanding that lizards are no longer proposed to be released there.

Expected conservation outcomes

The outcomes we expect from the above elements, which we consider are properly attributed to the revised package, are as follows.

- Materially improved survival for the approximately 7,700 Kowarau gecko and 800 southern grass skink relocated, relative to the same animals released into environments subject to mammalian predation, together with the prospect of recruitment within a mammal-free environment.
- The establishment of a southern grass skink population within a predator-free sanctuary. No such receiving environment existed under the package as lodged. Given the species' At Risk status, this is a small but additional secure population rather than the redistribution of an existing one.
- Approximately 81 ha of mammal-free habitat under active management for the life of the Project, on an improving habitat trajectory as browsing and predation pressure are removed and low-stature vegetation complexity and invertebrate prey availability increase.
- A population-level increase in the lizards already resident within the fences. This outcome is independent of relocation and is not contingent on the success of the salvage programme. It applies to resident Kowarau gecko, southern grass skink and McCann's skink. The applied research associated with the Mokomoko Dryland Sanctuary, and the peer-reviewed research recorded at limb (e) of the Panel's RFI 11 question, indicate that lizard populations can double in pest-free environments.
- Two spatially separate secure populations of Kowarau gecko, providing redundancy against a single event affecting one sanctuary.
- Monitoring of lizard abundance and occupancy within the sanctuaries against a pre-release baseline over the life of the Project, with contemporaneous comparison against the broader Ecological Study Area.

Ms Anderson is of the view that a benefit of the original proposal, i.e. the expected increase in Kowarau gecko populations within the fenced sanctuaries, will no longer be realised because the sanctuaries are now to be used as release sites and that no proportional alternative action has been offered. We do not accept that the benefit is lost. The removal of mammalian predators produces an uplift in the resident lizard populations within the fences whether or not salvaged animals are added. The proposed release density for Kowarau gecko, an increase of approximately 40 per cent over the assumed resident density, sits below the increase that pest-free conditions are expected to support. What is lost is not the benefit but the ability to measure it cleanly, because the response of resident animals can no longer be separated from the contribution of released animals. That is a monitoring consequence, addressed in Section 9 of this document.

Where the proposal is reasonably robust notwithstanding unavoidable uncertainty

We accept that uncertainty exists and that, in the respects identified below, it cannot be removed in the time available. We do not accept that it undermines the elements of the package described above, for four reasons.

First, the assessment claims no credit for the uncertain elements. No reduction in the severity of residual effect has been claimed on account of salvage and relocation. The residual magnitude of net loss for lizards is assessed as High, at the lower end of that category, on the assumption that the salvage and relocation programme does not reduce the severity of effect. Uncertainty about post-release survival therefore does not result in understating the level of residual effect. If the salvage and relocation programme performs as we expect, the outcome will be better than assessed, not worse. As recorded in the JWS, that conservatism reflects a deliberately cautious assessment rather than an assumption that all salvaged lizards will die.

Second, the methods are established and the practitioners must be suitably qualified. Manual searching and artificial cover object checks for Kowarau gecko and pitfall and funnel trapping for southern grass skink are standard and well-tested methods for these species in this landscape. Salvage, release, identification and monitoring are to be undertaken by suitably qualified and experienced herpetologists working under the Lizard Management Plan, which will be certified by ORC, the Central Otago District Council (CODC) and DOC. Predator exclusion is neither novel nor experimental in Central Otago. The Mokomoko Dryland Sanctuary demonstrates that mammal-free conditions can be created and held and that lizard populations respond positively. For instance, preliminary results show that:

- the number of schist geckos (which are closely related to Kowarau geckos) found in Onduline retreats inside the sanctuary has increased nearly 8-fold since 2014, compared with only marginal changes outside the fence¹. This includes a 3.4-fold increase from 2014 to 2020 (Turner and Norbury, 2023) and a further 2.3-fold increase from 2020 to 2024 (Appendix A).²
- the number of skinks (McCann's and southern grass skink combined totals) found in Onduline retreats inside the sanctuary has increased nearly 5-fold since 2014. This includes a 1.8-fold increase between 2014 and 2020 and a further 2.7-fold increase between 2020 and 2024 (Appendix A).

We note further that, based on our site visit to the Mokomoko Dryland Sanctuary in 2025 and personal communications with Grant Norbury at that time, habitat changes had occurred through the removal of mammalian browsers, including increased density and complexity of low-stature exotic vegetation and localised increase in grey scrub on south-facing slopes.

Third, the density assumptions are grounded in site data and include headroom. The resident density assumptions are derived from field surveys undertaken across the site and within each habitat type, rather than from published defaults or values transferred from other sites. The proposed release densities sit below the increase in density that pest-free conditions are expected to support, which means that if resident densities are higher than assumed there remains margin before over-stocking becomes a material risk.

Fourth, what remains uncertain is addressed by mechanism rather than by assumption. Where an outcome cannot be demonstrably predicted, including for post-release survival, changes in carrying capacity associated with habitat enhancement, and relative population response from relocation versus removal of introduced mammalian pests, the response proposed is monitoring against a pre-release baseline, performance standards and triggers secured in conditions, and adaptive management, together with DOC certification and review of the Lizard Management Plan.

Two important qualifications should nonetheless be noted. The improvements described above should not be interpreted as meaning that the high magnitude of net loss outcomes have been resolved. Significant residual effects on lizards remain and are discussed further in Section 3. In addition, while the revised package prioritises management of the two At Risk species, Kowarau gecko and southern grass skink, it does not provide an equivalent management response for McCann's skink. That issue is addressed separately in Section 5.

3. Adequacy of updated effects management package

As we understand their comments, it is accepted by the invited party experts that the shift away from broad-scale salvage into unfenced receiving areas, and towards targeted salvage of the two At Risk species with release into predator-exclusion sanctuaries, is the better approach and is consistent with the Lizards JWS. Consequently, the logic and approach to the revised package in respect of salvage and relocation is not in contest.

However, the invited party experts consider that improved per-individual survival is substantially cancelled out by the reduction in the number of animals salvaged, so the net outcome is largely unchanged and a high level of residual adverse effect remains.

¹ Mokomoko Newsletter No. 24 June 2026 (Appendix A).

² Ibid

Of greater importance in terms of demonstrable outcomes, the combined sanctuary area, and the associated benefits of the sanctuaries for lizards, remains small relative to the accounted loss of 610 ha of habitat within the DDF: total sanctuary area increases only from 67 ha to 81 ha, albeit with an increase in habitat quality.

These points are consistent with the conclusions recorded in MGL's RFI 11 response itself. For the same reason, MGL has not provided an updated biodiversity offset accounting model on the basis that the revised package does not materially change the magnitude of net loss, which remains High at the lower end of that category.

4. Information gaps and uncertainty

As the invited party experts observe, the RFI 11 response presented release numbers derived from assumed available capacity applied to sanctuary areas, but did not set out the underlying habitat mapping, or the assumptions on resident population estimates and available carrying capacity, that underpinned the proposed release numbers.

Further detail on habitat mapping, resident population estimates and proposed release numbers per ha (and total) is provided in the following sections. However, we should also be clear about the limits of what further work can deliver. While there are methods to improve density estimates from survey data, actual lizard abundance cannot be estimated with high precision by any available method, because the relationship between detection rates and actual lizard numbers is unclear and difficult to interpret. In our view, what we have provided — and support with the further information below — is a defensible and transparent estimate with stated assumptions, consistent with the standard expected by the Department of Conservation's key principles for lizard salvage and transfer in New Zealand (2019).

Further information on habitat mapping and habitat suitability of Battery Hill

Habitat suitability within the Battery Hill Sanctuary is well understood for Kowarau gecko and southern grass skink. The sanctuary supports wetlands, wet valley bottoms and wet margins. These are clearly mappable and have formed the basis for our estimate of 4 ha of southern grass skink habitat in the sanctuary. Our extensive surveys for Kowarau gecko across the DDF show that all of the ridge, spur, slope and valley bottom areas in the sanctuary support habitat for Kowarau gecko.

Dr Rogers raises the siting of the sanctuaries. He considers that their location was driven by the constraints of the primary land use rather than by principles of conservation reserve design for dryland herpetofauna; that the Bendigo Sanctuary is bereft of southern grass skink habitat and Battery Hill is mainly of a shady, cool, south-east aspect that is sub-optimal for thermoregulation; and that Battery Hill, abutting the RAS Pit, is vulnerable to expansion of the mine footprint, compromised as a regional mainland island, and exposed to spill-over effects from mining activity.

The locations available are constrained by the land MGL controls and by the mine plan, and neither sanctuary was sited by applying conservation reserve design principles from first principles. However, both sanctuaries sit outside the DDF and are not proposed to be encroached upon by the consented footprint. On aspect and habitat quality, Battery Hill was selected in part because the two habitat elements the target species require are present, and the mapping and habitat-quality information described below is directed at precisely the question Dr Rogers and Ms Anderson both raise.

We accept Dr Rogers' observation that the rock outcrop morphology of the sanctuaries has not been assessed against the characteristics identified for grand and Otago skink translocation. The introduction of those species to the sanctuaries was mentioned in the application but has not been formally proposed as a compensation measure, and no reliance is placed on it in the assessment of effects. If it were to be pursued, an assessment would be required first.

On spill-over effects during operations, MGL acknowledges that portions of the Battery Hill Sanctuary sit closer to active mining than the Bendigo and Ardour areas previously proposed. This proximity is managed in two ways.

First, through location, design, and timing. The sanctuary is established at its full 52 ha extent with predator exclusion fencing and habitat management in place from the outset. Mining is closest to the boundary early, at the RAS pit, and moves downwards and away as the pit advances. Two other adjacencies are short-lived: a haul road used only in later stages, and a topsoil stockpile at one end of the sanctuary for a period. Closest proximity to mining is

therefore short, and its effects are temporary, limited to the operational life of the mine — short compared to the life of the sanctuary, which continues well beyond mining.

Second, through standard operational controls already secured elsewhere in the consent conditions: dust suppression on haul routes and exposed surfaces, blast vibration limits set to protect structures and sensitive receptors, and lighting design (directional, shielded, and limited to operational necessity) to reduce spill into adjacent habitat. These controls apply project-wide and are not specific to the sanctuary, but they directly reduce the edge effects the sanctuary would otherwise be exposed to during this early period.

Although some spill-over effects during this period cannot be ruled out, these measures appropriately manage the risk of spill-over effects during the operational period, given both the temporary nature of the effects and the short duration of closest proximity to the boundary. If the Panel considers it necessary, this could be secured by condition.

Further information on resident population estimates

Our estimates of existing resident lizard densities were based on field survey results versus habitat type; however, these are estimates based on indices of abundance rather than population estimates. For Kowarau geckos our estimate of resident density within the Battery Hill Sanctuary is conservative, as we have detected higher densities through timed capture elsewhere within the DDF within similar habitat. For southern grass skink, we have fewer data and our estimate of 9,000 individuals across the 47 ha of mapped habitat within the DDF (i.e. approximately 190 skinks per hectare) roughly accords with the information provided by Ms Anderson on resident southern grass skink density in comparable Central Otago habitat at around 200 per hectare. Those estimates are based on resident populations in the presence of mammalian pests. In the absence of pests, carrying capacity for these skinks is assumed to be around five times greater (based on the results from the Mokomoko Dryland Sanctuary).

In terms of the 4 ha of southern grass skink habitat mapped on the Battery Hill Sanctuary, this is mostly delineated wetland and riparian habitat that is highly unlikely to be lost to grey scrub succession. Moreover, carrying capacity within this habitat is expected to improve considerably as the habitat increases in complexity once browsing pressure from domestic livestock and feral mammalian browsers is eliminated.

For Kowarau gecko and McCann's skink, it is expected that there will be some loss in carrying capacity where dense low-stature vegetation is replaced and shaded out by grey scrub. However, the proportion of habitat affected by this change is relatively small and will, in our view, be more than counter-balanced by increased low-stature vegetation complexity and the removal of mammalian predators.

We accept that there is a degree of uncertainty on precisely how carrying capacity will change or on the trade-off between salvaging as many lizards as possible while avoiding over-stocking and adverse effects on resident and relocated lizards. However, we do not accept that our estimates are inappropriate, as they are based on actual data collected across the site and within each habitat type.

Further information on proposed release numbers

It is the view of MGL's experts that lizard densities in Central Otago are well below carrying capacity as a result of predation pressure and, where it compromises low-stature vegetation complexity, browsing pressure — which is the case for most of the habitat within the pest exclusion fences. That view is supported by the extirpation of some species from the landscape, significant declines in the distribution and abundance of others, and the marked increases in numbers following eradication of pests, including of common species. This is most evident from the applied research undertaken in association with the 14 ha Mokomoko Dryland Sanctuary as summarised above.

Given the above, we consider that the pest exclusion fences will be able to support at least double the densities currently estimated to be present, without materially compromising resident lizards through inter- or intra-specific competition.

5. McCann's skink

We accept that effects on McCann's skink are not adequately addressed by the updated effects management package, both in terms of the salvage and relocation programme and in terms of the benefit of the proposed offset and compensation package relative to the scale of impact.

That said, the prioritisation of Kowarau gecko and southern grass skink reflects the agreement recorded in the Lizards JWS that effects management effort should be directed to the species of higher conservation concern. Kowarau gecko and southern grass skink are nationally At Risk; McCann's skink is Not Threatened.

6. Species identification (southern grass skink versus McCann's skink)

The invited party experts raise the reliability of separating southern grass skink from McCann's skink, and Dr Tocher seeks independent verification as an express condition rather than a matter left to plan implementation, on the basis that identification underpins population estimates, habitat mapping, salvage design, release-site selection and the 4 ha southern grass skink release area at Battery Hill.

We do not consider this a material impediment to the revised package. The two species are reliably distinguishable in the hand by experienced herpetologists, and salvage, release and any verification will be undertaken by suitably qualified and experienced herpetologists working under a certified Lizard Management Plan (LMP). Nor does the point bear on the design of the package in the way suggested: the release area at Battery Hill was selected on habitat criteria — damp soils and wet margins associated with Rise and Shine Creek — and those criteria are not sensitive to the identification of individual animals detected during survey.

That said, the point is inexpensive to resolve and we see no reason to resist it. We do not oppose a condition requiring independent verification of species identification, whether by expert verification of vouchered photographs of a defined sample, by an independent herpetologist attending salvage, or by another mechanism acceptable to DOC. Further to this, we support an agreed set of identification characteristics being applied to the site by the herpetologists undertaking the salvage-relocation works. The further mapping and population work described in Section 4 will in any event be undertaken on a basis that addresses the identification question directly.

7. Predator, mouse and rabbit management

Condition C97 is current, accurate, and adequate — it covers the range of measurements needed to monitor and manage vertebrate pest populations at the project site in line with the current proposal.

For clarity, rodent control is not proposed for areas outside the sanctuaries unless population levels spike beyond those recorded at the time of the original project assessment, whether for lizard benefit or otherwise. There would be little point in monitoring for monitoring's sake, so no additional targets are proposed beyond keeping mice at the relative level they were at when the project assessment occurred.

The sanctuaries were modelled on the Mokomoko Dryland Sanctuary, which to date has an impressive track record of maintaining a mouse-free sanctuary in the local environment. The Mokomoko Dryland Sanctuary does not have a halo of traps around its exterior. Its performance demonstrates that a well-designed and well-constructed predator-proof fence is, on its own, an adequate barrier to reinvasion. External trapping is not a necessary component of that adequacy. Should incursions nonetheless occur, adaptive management provisions under the MSMP will allow sanctuary managers to consider additional measures, including trapping outside the fence, at that time. In any event, should the lack of a halo be identified as a cause of incursions as time progresses, the adaptive management provisions would see sanctuary managers work through how the situation could be improved, including with additional trapping effort outside the fence.

Rabbits were proposed to be left inside the Ardour Sanctuary to keep vegetation low and maintain high-value cushionfields in the sanctuary. As there is little cushionfield in the proposed Battery Hill Sanctuary, rabbits will be managed to low densities, with eradication being the preferred target. This will be included in the management plan upon its next revision prior to certification.

8. Programme sequencing

Three of the invited party experts raise sequencing, timing and captive holding. In broad terms, the point made is that release-ready conditions require several years of construction, predator eradication and monitoring; that clearance cannot proceed until salvage has occurred; that salvage cannot sensibly proceed without a release site ready to receive the animals; and that there is no enforceable programme linking these matters.

The revised proposal is not that animals be salvaged and then held while the sanctuaries are prepared. The RFI 11 response states that habitat enhancement will be undertaken prior to release, and that relocations will occur only into areas where the required habitat enhancement and predator management measures have been implemented. Extended captive management is not proposed.

9. Demonstrability of benefit

It is acknowledged that the success of the salvage and relocation programme cannot be determined, because there is at present no culturally or ethically acceptable and robust method of distinguishing relocated lizards from resident lizards, and therefore no means of tracking or confirming the long-term success of the programme, including the potential for adverse effects on resident lizards. We also note that toe-clipping was proposed on the condition that it was acceptable to iwi but has been ruled out in light of the concerns raised. The absence of a means of determining relocation success is a universal issue, and is why, in the absence of evidence, we have assumed that the salvage and relocation programme does not reduce the severity of effect.

Related to this is also the acknowledgement that the relocation of salvaged lizards into the pest exclusion fence sanctuaries confounds the ability to distinguish between increases attributable to released animals (or their progeny) as distinct from increases of resident populations related to the removal of introduced predatory mammals. We point out that this was one of the reasons why we initially did not propose to release lizards into the Bendigo and Ardgour Sanctuaries, i.e. we wanted to be able to quantify the response of lizards to the elimination of mammalian pests, and why we instead proposed to release salvaged lizards into the Ardgour Restoration Area. The revised package was adopted because the experts agreed that release into predator-free environments delivers a better outcome for the individual animals salvaged, and that is correct. It does, however, involve accepting a measurement trade-off that the original design avoided, and the Panel should understand that as a deliberate consequence of a change made in response to expert agreement rather than as an oversight.

As set out in the Assessment of Ecological Effects Report and in the Biodiversity Outcome Monitoring Programme, lizard abundance and occupancy within the sanctuaries will be monitored against a pre-release baseline over the life of the Project. This will enable a before-and-after comparison of lizard numbers, as well as real-time comparison with lizard numbers across the broader ESA subject to control of mammalian pests via the Mammalian Pest Management Plan.

10. Further improvements to consent conditions

We consider the 28 August 2026 conditions to be an improvement, and that most residual gaps are capable of resolution through further drafting, which has since occurred to reflect the lizard management regime discussed above.

11. Conclusion

We accept, as we did in the RFI 11 response itself, that the package does not resolve the high magnitude of net loss expected, noting that the magnitude of net loss will diminish over time as lizard habitat is re-instated within the ecological rehabilitation areas and longer term compensation actions take effect.

In this context, we support the updates to the revised effects management package and consider that it improves the position for the animals it covers: salvage effort is directed to the two At Risk species, those animals are released into mammal-free environments where their prospects of survival are materially better, the receiving environment is larger and, for southern grass skink, now includes suitable habitat within a pest exclusion fence, and release numbers are set by what the receiving sites can carry. Those elements are secured for the life of the Project through the Matakānui Sanctuary Management Plan and updated conditions which we support.

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Appendix A – Mokokoko Dryland Sanctuary Newsletter (June 2026)

Mokomoko Newsletter

Number 24, June 2026

Kia ora everyone. it's been another fantastic year at Mokomoko Dryland Sanctuary. Here's a few pieces of news.

Otago green skinks:

Our newest arrivals, the 61 Otago green skinks that were translocated into the sanctuary in December 2024, are proving just as cryptic as expected! They like the damp gullies, and will bask partly hidden in vegetation. However, we're finally starting to see a few, and we're thrilled to have spotted eight new babies. They seem particularly fond of a stick pile with pohuehue/*Muehlenbeckia* growing through it. Getting ID photos is challenging, see photo below.



Spot the baby green skink! (Hint: This one's not very green)

Otago skinks:

Otago skinks were released in 2018 and their numbers are climbing strongly (see graphs below). Sixteen new babies were seen last year, making a total of 78 born in the sanctuary that we know of. They're reasonably secretive animals, so some aren't spotted until they reach adult size



DOC survey team Jo Corrie, Byron Radford, Carey Knox, Grant Norbury and Gordon Rayner Oct 2025. AY

at age four. Sometimes adults also elude us for a year or two before reappearing. The Otago skinks still don't seem in a hurry to leave the well-populated rocks they were raised on, and only the odd one is seen roaming to other outcrops.

Grand skinks:

A trek up to Rock 7 (which we call 'Grand Central') is almost always rewarded with sightings of the active grand skinks, which are often seen stalking insects or chasing each other. A total of 73 baby grand skinks have now been spotted in the sanctuary. The number of founding animals appears to be dropping as they die of old age, with only one founder seen in the last six months. They're not as long-lived as Otago skinks so this isn't surprising. They've done a wonderful job of getting the first generation of sanctuary born animals going, so cheers to them!



One of the founding female grand skinks, Oq045. AY



Newborn grand skink at Rock 7. AY

Conservation status change:

The conservation status of both grand and Otago skinks has improved from 'Threatened – Nationally Endangered' to 'Threatened – Nationally Increasing'. This is great news, and is attributed to conservation efforts at Macraes for eastern animals, and at Mokomoko Dryland Sanctuary for western animals, as well as the continued existence of some populations in the wild.



Two sanctuary-born Otago skinks bask together. Sep 2025. AY

Jewelled geckos:

Fifty four of the 84 founding jewelled geckos released in 2018 have now been seen, and 47 babies. They're remaining difficult to survey, due to the increasingly high, complex tangles of *Coprosma*, *Muehlenbeckia*, matagouri and bush lawyer in the gullies. These tangles are dream real estate for jewelled geckos,

replete with flies, flowers, berries and leafy camouflage, but they're a real challenge to survey. Carey Knox's drone has helped find a few. Recently a founder was sighted that had stayed hidden for the last eight years!

The little guys:

Over summer Anna and Grant repeated population counts of schist geckos, McCann's skinks, and southern grass skinks both inside and outside the sanctuary. Previous counts were made in 2014 before the fence was built, and in 2020, so we're able to see how these pre-existing species have responded to being in a mammal-free sanctuary.



Anna and her dad Richard Gray checking gecko retreats March 2026. Photo Helen Gray

Preliminary results show that the number of schist geckos found in Onduline retreats inside the sanctuary have increased nearly 8-fold since 2014, compared with only marginal changes outside the fence. Tracking rates of geckos and skinks, and sightings of skinks along transects, have also increased substantially. See graphs below. On one of the survey sessions inside the sanctuary we checked 96 Onduline retreats before we found one that didn't



How many schist geckos here?! Some are marked with silver pen. You can also see pieces of discarded skin and droppings. GN



Delegates from the Australian Wildlife Management Society conference visit the sanctuary Dec 2025.

have a gecko in it! The busiest had 17 geckos.

A big thank you to Central Lakes Trust, Otago Community Trust and the Sargood Bequest Trust for funding this hugely encouraging research. It clearly shows that small relatively common lizard species can benefit greatly from the absence of predatory mammals.

Visitors:

In the last year we've enjoyed visits from Whakatipu Wildlife Trust, Whakatipu Reforestation Trust, Southern Lakes Sanctuary, E3 Environmental Consultants, local children with Enviroschools, ORC

Biodiversity Forum, Australasian Wildlife Management Society and a number of private groups. It's wonderful to see people enjoying our native lizards in ways they may not have before.

Research:

University of Otago Masters student Ryan Sullivan is studying the social behaviour of schist geckos at the sanctuary. By regularly checking clusters of Onduline retreats, he's been recording the groups the geckos congregate in, and how stable these are over time. He's also using genetics to determine family relationships. We'll be fascinated to hear what he finds.



Mary, Gordy and Otis Rayner and Grant Norbury inspect tracking cards. AY



Two young visitors show full commitment to photographing a grand skink. AY



Stephanie Godfrey, Ryan Sullivan and Kaleb Latu at work. AY

No mice!

We're over the moon to have clocked up four years mouse-free and counting! Anna continues regular checks and happily reports no sign of the hungry munchers. Woohoo!

A great film:

A big thank you to film maker Ellie Adams who produced a beautiful short film about Mokomoko Dryland Sanctuary, premiered at the NZ Mountain Film Festival in 2025. Films like this help raise public awareness about lizard conservation needs. You can watch Ellie's film here: https://drive.google.com/file/d/1I03RhS7FWeKiSr4sfR_UAePY9iLsYSH4/view?usp=drive_link



Above: Visitors enjoying 'Grand Central'. Below: As the native vegetation increases in the gully, pīwakawaka are a common sight.



Thank you:

A big thank you to our amazing volunteers who check the fence every month, and to those who come out and help spray briar and everlasting pea. It makes such a difference. We're also thankful for the generosity of our financial supporters. We appreciate recent support from the Jones Long Family, Central Lakes Trust, Transpower, Sargood Bequest Trust, Otago Community Trust, ORC Ecofund, Laura and Henry Roe and Earnsclough Station.

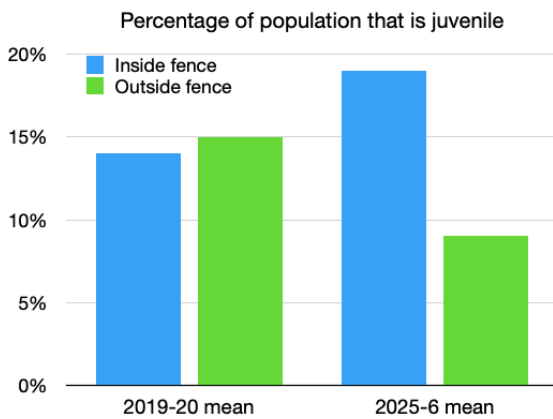
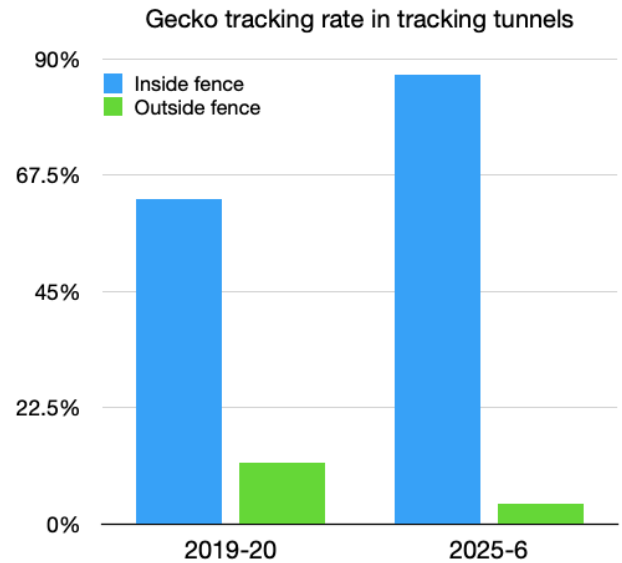
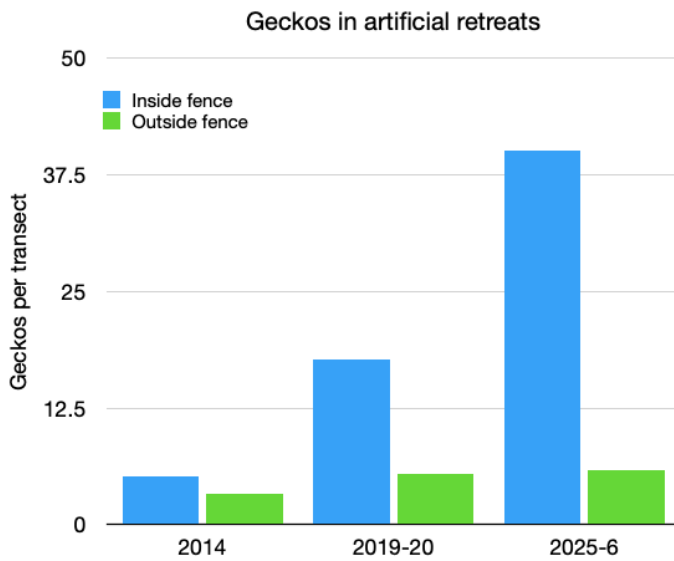
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Trustees of the Central Otago Ecological Trust



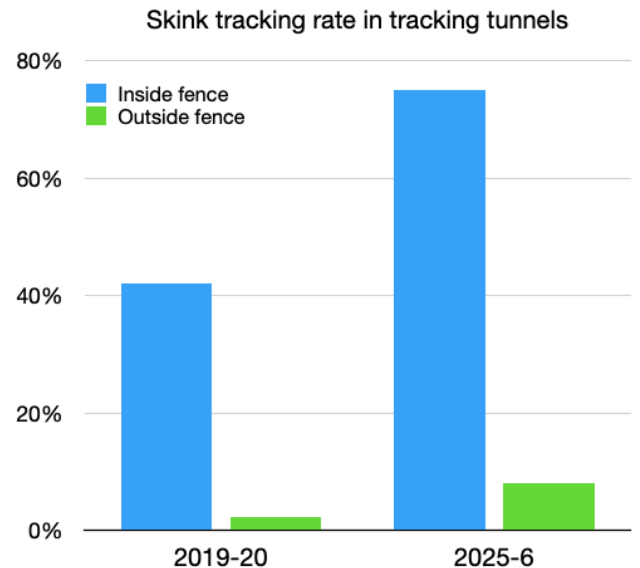
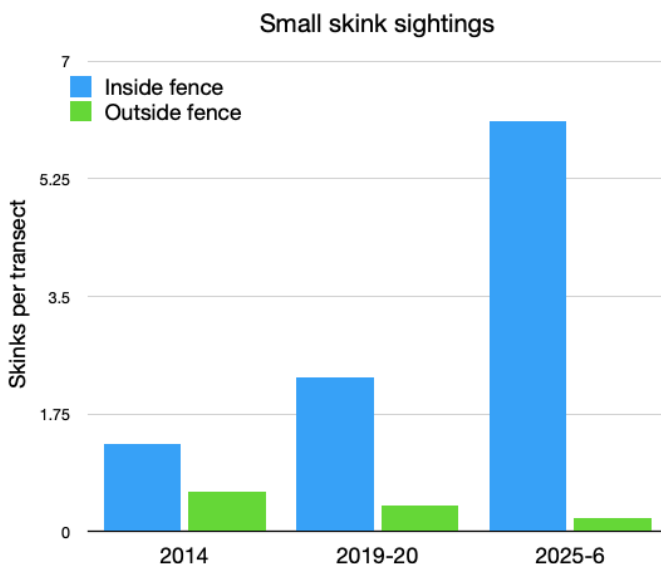
A young jewelled gecko. April 2026. AY

Schist geckos



Schist gecko in *Coprosga propinqua* at night. Carey Knox

Southern grass skinks and McCann's skinks



Grand and Otago skinks

