

Before the Fast-track Panel

Under: The Fast-track Approvals Act 2024
In the matter of: FTAA-2507-1089 – Bendigo-Ophir Gold Project

Further Statement of advice

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Department of
Conservation
Te Papa Atawhai

**Te Kāwanatanga
o Aotearoa**
New Zealand Government

Introduction

1. My full name is Dr Mandy D Tocher.
2. I have been requested to provide further expert advice on behalf of the Department of Conservation (DOC) on the Bendigo-Ophir Gold Project Fast-track application, focusing on the applicant's response to RFI 11, Question 10, which concerns alternative approaches for managing effects on lizards, including lizard salvage and relocation, substantially larger or alternative pest-exclusion sanctuary options, and the management of residual lizard effects. This advice also includes my additional comments on the proposed Wildlife Act conditions, which I address because they are closely linked to whether the revised lizard management package can be authorised, implemented, monitored and enforced.

Qualifications, Experience and Code of Conduct

3. I refer to my Statement of Advice dated 23 March 2026¹, including the qualifications and experience set out in that statement. In providing this further advice, I confirm that I continue to abide by the Environment Court's Code of Conduct for Expert Witnesses.

Response to RFI 11 – Lizard Management

4. The applicant has responded at a broad level by indicating that it considered other options and now prefers a smaller, targeted salvage approach focused on two fenced predator-free sanctuaries. That shift is generally consistent with the Joint Witness Statement² (JWS) and DOC input because it focuses effort on priority species and receiving environments with better long-term prospects.
5. However, the revised package does not yet address all the issues raised in the Panel's 25 June 2026 request for further information (RFI 11). It does not clearly explain why larger or alternative sanctuary options were rejected, whether the proposed sanctuaries are sufficient for the scale of residual lizard effects, how

¹ Attached as Appendix A to the Director Generals s51 comments, 25 March 2026.

² Joint Statement of Expert Witnesses: Ecology – Lizards, Bendigo-Ophir Gold Project (FTAA-2507-1089), dated 19 May and 10 June 2026.

success will be measured, what the revised approach will cost, or what enforceable conditions will secure delivery.

6. Overall, the revised package may be an improvement on the original proposal, but a high level of residual adverse effect on lizards remains. Effects on McCann's skink, an absolutely protected species under the Wildlife Act 1953, are materially unaddressed because relocation is no longer proposed. That unaddressed species treatment is relevant to both site-level effects and cumulative effects on McCann's skink across Central Otago.

Proposed Salvage Numbers and Species Treatment

7. The response identifies total release numbers in grouped terms, rather than clearly allocating numbers by species and sanctuary. It states that 7,700 Kowarau geckos would be salvaged and released into the Bendigo and Battery Hill sanctuaries combined, and that 800 southern grass skinks would be released into approximately 4 ha of suitable habitat within the Battery Hill Sanctuary.
8. No relocation is proposed for McCann's skink. Instead, any individuals found during works would be released at their capture locations within the direct disturbance footprint. In my opinion, that is not an adequate effects-management response. Offsite options have not been sufficiently assessed, and releasing individuals back into an area that will later be disturbed is likely, in practical terms, to result in their subsequent loss. This consequence should be recognised and addressed directly, rather than characterised as a neutral lizard release outcome.
9. The response does not reconcile the revised release numbers with larger affected-population estimates elsewhere in the material, including the applicant's previous reference to a 102,000-lizard salvage concept and the applicant's estimates of approximately 600,000 affected lizards, including about 160,000 Kowarau geckos and 9,000 southern grass skinks. The numerical basis for the revised package is therefore difficult to follow.
10. The response does not identify the personnel, teams, capture effort, holding arrangements, or other resources needed to deliver the proposed salvage. That makes it difficult to assess whether Wildlife Act conditions can be drafted with sufficient certainty, including for temporary holding if release sites are not ready.

11. The response therefore provides assumed release densities and total numbers, but not a transparent species-specific and sanctuary-specific explanation of how those figures were derived, how they relate to affected-population estimates, or why they are proportionate to the predicted residual loss.

Timing, Sanctuary Readiness, and Sequencing

12. The response gives only a general sequence: sanctuary preparation, habitat enhancement and predator management before lizard releases. It also states that habitat enhancement will begin as early as practicable after approval and continue through sanctuary establishment and operation.
13. That is not a certain or enforceable programme. The response does not specify when baseline monitoring will occur, what methods will be used, when fences will be built, when sanctuaries will be confirmed predator-free and weed-managed, when habitat enhancement will be completed to a release-ready standard, when salvage will begin relative to works, when each species will be released, or what contingency applies if sanctuary establishment is delayed.
14. In my opinion, the absence of an enforceable timeline is a significant gap. Construction, salvage, predator eradication, habitat readiness, release timing, monitoring and contingencies need to be linked so the programme can be certified, implemented and enforced.

Habitat Suitability and Carrying Capacity

15. The response asserts that suitable southern grass skink habitat is present within Battery Hill, but does not provide the supporting detail normally expected, such as survey methods, habitat mapping, vegetation or hydrology criteria, detection records, field notes, photographs, or a clear explanation of how the 4 ha figure was calculated.
16. This matters because reliable separation of southern grass skink from McCann's skink is central to confirming whether Battery Hill supports the intended receiving population. If identification uncertainty remains, the evidential basis for the proposed southern grass skink release area is weakened.

17. I accept that both sanctuaries are likely to provide some suitable habitat for Kowarau gecko, but that should be evidenced as soon as practicable. The response does not yet provide a robust habitat-suitability assessment for either sanctuary.
18. Carrying capacity is also not adequately assessed. The applicant relies on 100 Kowarau geckos per hectare across Bendigo and Battery Hill combined, and 200 southern grass skinks per hectare over about 4 ha at Battery Hill. It does not provide sanctuary-specific carrying-capacity estimates, resident lizard population estimates, habitat-quality assessment, or evidence that release numbers have been tested against existing lizard densities and available suitable habitat.
19. The absence of any carrying-capacity assessment for McCann's skink is also relevant. Existing McCann's skinks within the sanctuaries will form part of the receiving lizard community and may affect the available carrying capacity for introduced Kowarau geckos and southern grass skinks through time.

Minimum Sanctuary Size Required

20. Using the applicant's assumed densities, the proposed release numbers imply a substantial minimum area requirement. At 100 Kowarau geckos per hectare, 7,700 geckos would require about 77 ha of suitable habitat. At 200 southern grass skinks per hectare, 800 skinks would require about 4 ha. The combined Bendigo and Battery Hill sanctuaries total about 81 ha, which only just meets that simple density calculation.
21. That calculation does not demonstrate sanctuary sufficiency. It appears to rely on gross sanctuary area rather than mapped, species-specific suitable habitat, and does not discount for unsuitable habitat, resident lizards, survival and recruitment uncertainty, competition or displacement, mouse management, long-term habitat trajectory, or the absence of a relocation response for McCann's skink. Those factors could materially reduce available carrying capacity.
22. For a screening-level estimate, I consider that a sanctuary materially larger than 81 ha would be required before the package could plausibly be said to balance residual effects on Kowarau gecko and southern grass skink. Applying a precautionary multiplier of approximately two to three times to the applicant's

minimum area estimate, to account for habitat suitability, resident populations, carrying-capacity uncertainty, survival uncertainty, and residual net loss, indicates a working range of approximately 160–240 ha of certified, species-suitable, predator-free and mouse-managed lizard habitat.

23. If the sanctuary package is intended to respond to the full residual lizard effects package, including unaddressed McCann's skink effects, uncertainty about effects outside the Direct Disturbance Footprint (DDF), long-term delivery risk, and the JWS conclusions that the proposed sanctuaries are insufficient in scale, the required area could reasonably be higher again. In my opinion, an indicative area in the order of at least 250 ha should be considered as a more appropriate lower-bound target for a standalone lizard compensation package, subject to confirmation through mapped habitat suitability, resident-population assessment, carrying-capacity modelling, release-density justification, legal protection, governance, funding, and enforceable long-term management conditions.
24. In my opinion, the applicant has not yet shown that the proposed sanctuary area is sufficient for the scale of residual lizard effects. A defensible assessment should identify suitable habitat for each species in each sanctuary, estimate resident lizard abundance and carrying capacity, justify release densities, and show that resident and released lizards can be accommodated over the 35-year management period.

DOC Best-Practice Salvage Principles

25. The revised approach aligns with DOC-style salvage principles only at a high level. The relevant DOC guidance is *Key principles for lizard salvage and transfer in New Zealand*, prepared by the Department of Conservation's Lizard Technical Advisory Group, which identifies nine principles for lizard salvage and transfer, including assessment of lizard values and effects, consideration of alternatives to moving lizards, suitable receiving sites and carrying capacity, monitoring, reporting and contingency actions.³ It is positive that the applicant has moved away from broad, large-scale salvage into unfenced areas and now proposes a

³ Department of Conservation, 2019. Key principles for lizard salvage and transfer in New Zealand <https://www.doc.govt.nz/globalassets/documents/about-doc/concessions-and-permits/wildlife-research-permits/lizard-salvage-and-transfer-nz.pdf>

more targeted programme focused on two At Risk species, with release into fenced predator-free sanctuaries.

26. However, the response does not yet demonstrate practical compliance with best-practice salvage principles. It lacks species-specific release numbers by sanctuary, robust receiving-site carrying-capacity evidence, demonstrated southern grass skink habitat suitability, pre-release habitat standards, release-site preparation requirements, monitoring methods, success criteria, trigger points, contingencies, and a realistic method for assessing survival or population-level benefit.
27. In my opinion, the applicant has moved in the right direction by focussing on At Risk species and predator-free release sites but has not yet provided enough detail to show that the salvage programme will be practical, measurable, enforceable, or readily translated into Wildlife Act (1953) conditions.

Key Remaining Gaps in Applicants RFI 11 Response

28. The alternative sanctuary assessment remains underdeveloped. The applicant says larger sanctuary configurations and alternative locations were investigated on Bendigo Station and Ardgour Station, but it does not provide a clear options table, maps, site-by-site assessment, comparative scoring, or reasons for rejecting each alternative.
29. The “substantially larger” issue is only partly answered. Replacing the approximately 38 ha Ardgour sanctuary with the approximately 52 ha Battery Hill Sanctuary, alongside the approximately 29 ha Bendigo Sanctuary, is a constructive improvement. However, the response does not yet explain, with supporting habitat mapping or carrying-capacity analysis, whether the revised sanctuary area is sufficient relative to the scale of predicted residual lizard effects. That assessment is particularly important given the applicant’s indication that only about 5% of affected Kowarau geckos and 8% of affected southern grass skinks would be relocated and given the potential scale of direct and indirect effects on Kowarau gecko habitat, including effects associated with the DDF and other affected areas such as the Ardgour Restoration Area.

30. Survival uncertainty is acknowledged but not resolved.⁴ The response accepts that survival outcomes are uncertain, and that predator-free release is expected to improve individual survival, but it does not provide a robust evidential basis for survival probability, measurable success, or population-level benefit.⁵
31. Monitoring and success metrics remain underdeveloped. The response refers to monitoring, reporting and adaptive management through amendments to the Matakanui Sanctuary Management Plan and relevant conditions, but does not set clear performance standards, trigger thresholds, timeframes, monitoring methods, or contingency actions for failure. It is also unclear what adaptive management within fenced sanctuaries is intended to involve, and that uncertainty should be resolved before reliance is placed on adaptive management as a key delivery mechanism.
32. The response does not demonstrate no net loss. It acknowledges that the revised package will not materially reduce the magnitude of net loss and that residual net loss for lizards will remain High, albeit at the lower end of that category.⁶ That confirms that the revised package *may be better* than the lodged package but does not fully address residual effects on lizards.
33. Existing sanctuaries or protected areas elsewhere are dismissed only at a high level. The response does not identify which existing sanctuaries were assessed, what species or habitat outcomes they could deliver, what costs were compared, or why they were inferior to the local, onsite sanctuary approach. The response also does not resolve whether suitable sanctuary or compensation options outside MGL land have been adequately considered, including any legal or scope issues associated with securing outcomes offsite.
34. Cost-effectiveness is not fully addressed. The Panel specifically referred to expected salvage costs in the vicinity of tens of millions of dollars, but the response does not provide comparative costings for full salvage, targeted salvage, sanctuary fencing, long-term management, monitoring, or alternative compensation options. I note that some cost-effectiveness matters may sit

⁴ RFI 11 response, Introduction, pp. 1–2.

⁵ RFI 11 response, Question 10, p. 1.

⁶ RFI 11 response, Conclusion, p. 13.

outside my core lizard expertise; however, the absence of comparative cost information is still relevant to assessing whether the revised lizard package is practical, proportionate, and capable of being secured through conditions.

35. Most importantly, the response relies heavily on future management plan amendments and conditions that have not yet been provided. To manage the effects on lizards, and draft condition wording, explicit commitments on timing, certification, funding, long-term legal protection, monitoring and adaptive management are required.⁷

Alignment with Joint Witness Statements

36. At a broad level, the RFI 11 response only partly aligns with the Joint Witness Statements. It shifts from broad salvage to targeted management of At-Risk lizards, with releases into pest-exclusion fenced sanctuaries. This approach is generally consistent with the Lizards JWS⁸, which recorded expert agreement that salvaged lizards should be released into a pest-exclusion area and that larger, habitat-rich fenced areas would be needed to substantially reduce effects on relocated lizards.
37. However, the response does not fully address the unresolved matters recorded in the Lizards JWS. In particular, the JWS identified uncertainty and disagreement about species identification, southern grass skink habitat mapping over the DDF, the extent of lizard habitat, the scale and permanence of effects, the sufficiency of sanctuary location and size, the need for performance measures, monitoring limitations, accidental discovery protocols, long-term protection, and the adequacy of the Lizard Management Plan. The RFI 11 response acknowledges some of those themes but does not yet provide the level of evidence, mapping, species-specific analysis, or enforceable commitment that would assist the Panel in assessing whether those matters have been adequately resolved.

⁷ RFI 11 response, pp. 4–5.

⁸ Joint Statement of Expert Witnesses: Ecology – Lizards, Bendigo-Ophir Gold Project (FTAA-2507-1089), dated 19 May and 10 June 2026.

38. The response also only partly addresses the matters recorded in the Effects Management JWS.⁹ I acknowledge that the Panel is not bound by the expert conferencing outcomes. However, those outcomes remain relevant because they identify the issues the conferencing experts considered important to the ecological effects assessment. In particular, the Effects Management JWS records concerns that residual ecological effects remain significant after application of the effects management hierarchy, that many proposed management measures are experimental in the dryland environment, that areas outside the DDF have not been adequately accounted for, that measurable outcomes should be secured in conditions, and that triggers and contingency actions require further work. It also records lizard-specific concerns about sanctuary scale, uncertainty in rehabilitation and rock-stack benefits, long-term legal protection and funding, and the need for measurable lizard outcomes to be detailed in conditions.
39. Against that background, the RFI 11 response should be viewed as a partial refinement of the applicant's lizard package rather than a complete resolution of the issues raised through expert conferencing. It adopts fenced sanctuary release for some lizards, which is a constructive change, but it does not yet provide sufficient evidence or enforceable commitments on appropriate sanctuary size, carrying capacity, resident lizard effects, McCann's skink treatment, habitat and population evidence, monitoring feasibility, adaptive-management triggers, long-term governance and funding, or the remaining scale of residual effects after salvage, rehabilitation, offsetting and compensation.

Broader Concerns That Remain Relevant

40. My earlier advice identified broader lizard-values concerns that remain relevant to the revised salvage and sanctuary proposal. These include incomplete survey coverage, some missing mapped detections and grid references, unresolved species-identification issues, and inadequate characterisation of how lizards use habitats across the Project Site.

⁹ Joint Statement of Expert Witnesses: Ecology – Effects Management, Bendigo-Ophir Gold Project (FTAA-2507-1089), 10 and 11 June 2026.

41. The effects assessment also remains incomplete. It does not consistently treat large-scale mortality and permanent habitat loss as expected outcomes; and has not fully integrated all activity areas where lizards or lizard habitat may be affected, including concession areas, wetlands and riparian margins, bore field and pipeline works, trenching, quarry and silt pond areas, stockpiles, predator-exclusion fence footprints, dewatering drawdown zones, and parts of the Bendigo Conservation Covenant uplift area.
42. The revised proposal also leaves unresolved effects-management hierarchy matters. There is limited evidence that avoidance of high-value lizard microhabitats has been systematically assessed or implemented before reliance is placed on salvage, rehabilitation, offsetting or compensation. I am particularly interested in avoidance outside the DDF and within the proposed Bendigo Conservation Covenant uplift area. A comprehensive significance assessment for lizard habitat, including against DOC significance guidance, the National Policy Statement for Indigenous Biodiversity Significant Natural Area criteria, and Otago Regional Council significance criteria, would assist in identifying where avoidance or stronger management responses are required.
43. I also remain concerned about reliance on rehabilitation and fenced sanctuaries to address residual lizard effects without stronger supporting evidence. The material does not yet demonstrate a clear pathway for rehabilitated mine landforms to recreate suitable and secure habitat for Kowarau gecko and southern grass skink within the proposed timeframe. Nor does predator control or fencing, by itself, demonstrate increased carrying capacity unless habitat structure, thermal opportunities, food resources, resident lizard populations, competition, displacement, mortality risk and mouse management have been assessed.
44. Finally, the Lizard Management Plan and condition framework remain central to whether the proposal is decision ready. My earlier advice identified that the Lizard Management Plan is not yet a coherent standalone instrument. In particular, it does not yet set out clear objectives, measurable outcomes, success criteria, release-site certification requirements, adaptive-management triggers, contingency actions, long-term governance and funding arrangements, or the

required ethics, iwi, and other approval pathways for proposed monitoring methods. This includes any invasive or otherwise undeveloped marking methods that may be proposed for use.

Suggested Amendment to Wildlife Act Approval Conditions

45. The Wildlife Approval conditions are the mechanism by which the revised lizard salvage, relocation, monitoring and residual-effects responses would need to be authorised, implemented and enforced. In my opinion, the adequacy of the RFI 11 response cannot be fully assessed without considering whether the associated Wildlife Act condition framework is sufficiently certain, measurable and enforceable to secure the intended lizard management outcomes.
46. I have reviewed the updated proposed Wildlife Act Approval and Conditions dated 28 August 2026. The updated conditions are an improvement on earlier drafting. They recognise a broader range of authorised activities, provide for DOC certification of the Lizard Management Plan, identify authorised personnel, include seasonal capture constraints and temporary holding provisions, and set basic release-site, reporting, incident-notification, and placeholder species-specific accidental discovery requirements. I address the remaining gaps broadly in the order in which they would need to be resolved in a workable Wildlife Act condition framework: outcomes and scope, pre-works information, species identification and avoidance, release-site readiness, species-specific management, implementation, monitoring, adaptive management, approvals, and review.
47. In summary, there are 13 principal gaps:
 - (1) absence of a comprehensive lizard-specific outcomes framework;
 - (2) scope certainty;
 - (3) mapped evidence requirements before works commence;
 - (4) species-identification certainty;
 - (5) enforceable avoidance;
 - (6) release-site readiness and carrying capacity;
 - (7) treatment of McCann's skink;

- (8) response to unexpected or higher-risk species;
 - (9) salvage implementation detail;
 - (10) long-term monitoring and reporting;
 - (11) adaptive-management certainty;
 - (12) approval pathways for monitoring methods; and
 - (13) DOC-controlled review and amendment.
48. I also make an overall comment on the need to ensure that the condition framework secures implementation, monitoring, adaptation, and enforcement of the full lizard effects-management package. The following paragraphs address the 13 gaps in turn, followed by that overall comment, with suggested condition topics and scope provided in Appendix 1.
49. Despite improvements, the updated conditions still do not fully address the central concerns identified in this report. They continue to rely heavily on future Lizard Management Plan detail and do not yet translate the revised salvage and sanctuary package into clear, measurable, and enforceable Wildlife Act conditions. That is significant because the RFI 11 response relies on targeted salvage, two predator-exclusion sanctuaries, habitat enhancement, monitoring, and adaptive management to address a high residual net loss for lizards.
50. The **first gap** is the absence of a comprehensive lizard-specific outcomes framework. The current Lizard Management Plan objective is framed around avoiding or minimising adverse effects during construction and operation, but the conditions do not specify species-specific ecological outcomes, measurable performance standards, success criteria, trigger thresholds, or corrective actions for Kowarau gecko, southern grass skink, and McCann's skink. Without those elements, DOC would have limited ability to determine whether the authorisation is achieving the intended protection and effects-management outcomes.
51. The **second gap** is scope certainty. The updated conditions refer broadly to the DDF, Project Site, other disturbed consent-area land, covenant uplift areas, concession areas, and mapped areas. However, the operative conditions should more clearly require the Lizard Management Plan to apply to all places where lizards or lizard habitat may be affected, including concession areas, wetland and

riparian margins, trenching and service corridors, bore field and pipeline areas, quarry and silt pond areas, dewatering drawdown zones, sanctuary and fence footprints, temporary stockpiles, laydown areas, access tracks, and ancillary works areas. This is necessary because Appendix A to the DOC section 51 comments and this report identify multiple areas that have not been adequately integrated into the effects assessment or compensation framework.

52. The **third gap** is the lack of mapped evidence requirements before works commence. The updated conditions do not require mapped lizard detections, survey effort, unsurveyed areas, habitat classifications, or grid references to be provided to DOC before disturbance. Those data are necessary to address the values-assessment gaps identified in this report, to confirm species distributions, to identify high-value microhabitats for avoidance, to assess release-site suitability, and to determine whether salvage and residual-effects measures are proportionate. These requirements should be included in the final Lizard Management Plan and expressly secured by conditions, rather than left to later implementation discretion, particularly given the documented problems with species misidentification.
53. The **fourth gap** is species-identification certainty. The conditions do not include an express independent verification process for distinguishing southern grass skink from McCann's skink. Given the significance of that issue for population estimates, habitat suitability, salvage design, release-site selection, and the proposed 4 ha southern grass skink release area at Battery Hill, independent verification should be a condition rather than an assumption left to later plan implementation.
54. The **fifth gap** is enforceable avoidance. The updated conditions require reporting on avoidance and minimisation protocols, but they do not include a clear pre-works obligation to avoid high-value lizard microhabitats wherever practicable before reliance is placed on salvage, rehabilitation, offsetting, or compensation. The conditions should require mapped high-value habitat, micro siting, exclusion fencing, method selection, and construction constraints to avoid or minimise effects on rock outcrops, tors, boulder fields, cushion vegetation used by

McCanns skink and Kowarau gecko; wetlands, riparian margins, and shaded southern grass skink habitats.

55. The **sixth gap** is release-site readiness and carrying capacity. The updated conditions require demonstrated habitat suitability and predator management before release but do not expressly require species-specific carrying-capacity assessment, resident lizard population assessment, mouse management, legal protection, long-term governance and funding, or evidence that release will not cause unacceptable competition, displacement, disease risk, mortality, or loss of habitat availability for resident lizards. These matters are central to the revised RFI 11 package because the applicant now relies on releasing smaller numbers of Kowarau gecko and southern grass skink into the Bendigo and Battery Hill sanctuaries.
56. The **seventh gap** is treatment of McCann's skink. The updated conditions authorise activities involving McCann's skink, but they do not clearly resolve how effects on that species will be managed under the revised RFI 11 approach, which no longer proposes relocation of McCann's skink. A specific condition is needed to prevent release back into areas where individuals are likely to be killed or displaced by subsequent works unless DOC has confirmed that no practicable alternative is available and residual effects have been expressly accounted for.
57. The **eighth gap** is the response to unexpected or higher-risk species. The updated conditions require DOC to be contacted if a lizard species not listed in Schedule 4 is identified and indicate that a variation or separate application may be required. In my opinion, that response is too limited. Where Lake's skink, jewelled gecko, orange-spotted gecko, or any other unexpected or higher-risk indigenous lizard species is confirmed or suspected, the conditions should require works in the affected area to stop, targeted survey to be undertaken, DOC-led review to occur, and the Lizard Management Plan and conditions to be amended as necessary before works recommence. This type of protocol should be included in the final Lizard Management Plan and secured by condition,

consistent with the best-practice Lizard Management Plan template¹⁰ agreed to be used in the Lizard JWS.

58. The **ninth gap** is salvage implementation detail. The updated conditions set out some capture and handling methods and temporary holding requirements, but they do not yet require the Lizard Management Plan to specify the personnel, teams, capture effort, stopping rules, holding contingencies, and release sequencing required to deliver the revised targeted salvage programme. This matters because the proposed targets, timing, sanctuary readiness, and any need to hold lizards are directly relevant to whether the conditions are practical and enforceable.
59. The **tenth gap** is long-term monitoring and reporting. The updated conditions require annual lizard compliance reporting and BIOWEB¹¹ submissions but appear to allow annual lizard monitoring reporting to cease once salvage is complete and captured lizards have been relocated. That is not sufficient if the Wildlife Act approval is relied on to secure long-term sanctuary performance, release-site outcomes, DDF rehabilitation outcomes, adaptive management, and residual-effects management over the life of the Project.
60. The **eleventh gap** is adaptive-management certainty. The updated conditions require contingencies and adaptive management triggers in general terms, but do not identify the circumstances that would trigger corrective action. The conditions should expressly address poor release-site performance, predator or mouse incursions, unexpected mortality, lower than expected capture rates, delayed sanctuary readiness, habitat enhancement failure, monitoring results showing outcomes are unlikely to be achieved, and any departure from assumptions used to certify the Lizard Management Plan.
61. The **twelfth gap** is approval pathways for monitoring methods. The updated conditions do not require animal ethics approval, iwi approval, or any other

¹⁰ Department of Conservation (DOC). (2019). *Guidelines and model for producing management plans for New Zealand lizards*. Prepared by the Department of Conservation Lizard Technical Advisory Group, Wellington, New Zealand.

¹¹ A DOC internal national database sometimes referred to as HERPETOFAUNA.

external approval before invasive marking techniques are used, if indeed they are. It is unclear what methods will be used, if any at all. Where those approvals are required, the conditions should require them to be obtained before implementation and should require an alternative DOC-approved monitoring method if approvals cannot be obtained.

62. The **final gap** is DOC-controlled review and amendment. The updated conditions include management-plan amendment and dispute-resolution provisions, but they should more clearly require review and amendment of the certified Lizard Management Plan, to DOC's satisfaction, if new information changes the understanding of lizard values or effects, additional affected areas are identified, unexpected species are detected, monitoring indicates objectives are not being met, sanctuary design or predator-management assumptions change, or rehabilitation outcomes differ from those relied on at certification.
63. Overall, the updated conditions are a useful step toward a more complete Wildlife Act condition framework, but they do not yet secure the full package of matters needed to make the revised lizard response fit for purpose. The remaining gaps are not merely drafting issues; they relate to whether the proposed approach can be certified, implemented, monitored, adapted, and enforced in a way that adequately and appropriately manages effects on absolutely protected lizards.

Unresolved Residual Effects – New Compensation Condition Suite

64. The revised RFI 11 response confirms that a high level of residual adverse effect on lizards will remain. Although the applicant has reduced salvage effort and now proposes fenced sanctuary release, the response does not show that the revised package will materially reduce residual loss, achieve no net loss, or deliver a measurable population-level benefit. Key residual effects remain unaddressed, including effects on McCann's skink, not salvaged Kowarau gecko and southern grass skinks, permanent habitat losses, sanctuary capacity, survival, monitoring outcomes and long-term delivery risk.
65. In my opinion, the residual effects remain unresolved for several reasons. First, the sanctuary proposal has not yet been supported by sufficient habitat-suitability, carrying-capacity, resident-population, or sanctuary-size analysis to show that the proposed receiving environments can accommodate the proposed

releases over the 35-year management period. Secondly, the treatment of McCann's skink remains a material gap because the applicant no longer proposes relocation or another substantive management response for that species, despite acknowledging effects on McCann's skink habitat and individuals. Thirdly, the monitoring and adaptive-management framework has not yet been developed to the point where success, failure, trigger thresholds, and corrective actions can be clearly assessed or enforced.

66. The revised package also appears to rely heavily on future management plan drafting to resolve matters that are central to the effects assessment now. These include final release numbers by species and sanctuary, sanctuary readiness, timing, long-term funding and governance, predator and mouse management, monitoring design, contingency actions, and the relationship between salvage, rehabilitation, offsetting, compensation, and residual net loss.
67. Accordingly, while the revised approach is a constructive improvement on the original broad salvage proposal, it does not yet provide a complete or sufficiently certain response to residual lizard effects. In my opinion, the material presently available does not demonstrate that the remaining high residual effects have been adequately avoided, minimised, remedied, offset, or compensated in a measurable, enforceable, and proportionate way. If approval is granted, I recommend that this uncertainty be addressed through a standalone lizard compensation condition suite requiring preparation, certification, implementation, monitoring, review, and secure funding of a compensation plan directed specifically to residual adverse effects on affected lizard species and habitat.

Conclusion

68. In summary, the applicant has moved toward a more targeted lizard salvage and sanctuary package. That is a constructive shift from the earlier broad salvage approach. However, having regard to the RFI 11 response, revised sanctuary proposal, earlier effects-assessment matters, updated Wildlife Act conditions and residual-effects issues above, I do not consider the current package sufficiently evidenced, complete or enforceable.
69. Key unresolved matters include the absence of a transparent alternatives assessment, inadequate habitat-suitability, sanctuary-size, carrying-capacity and

resident-population evidence, lack of an enforceable timeline, uncertain survival and monitoring outcomes, unresolved implementation resourcing, unclear adaptive management, incomplete assessment of broader lizard values and activity areas, insufficient avoidance before reliance on salvage or compensation, and no substantive management response for McCann's skink. The updated Wildlife Act conditions are useful but still rely on future management-plan detail and do not yet secure the species-specific outcomes, mapping, release-site certification, monitoring, adaptive-management triggers, review mechanisms and long-term delivery obligations needed for decision-ready conditions.

70. For those reasons, I do not consider that the applicant's response fully resolves issues about lizard salvage, sanctuary sufficiency, survival uncertainty, Wildlife Act condition certainty, or residual effects. If approval is granted, I recommend a standalone, lizard-centric Wildlife Approval compensation condition suite so residual lizard effects are clearly identified, delivered, monitored and enforced on their own terms, rather than being subsumed within broader biodiversity, rehabilitation, landscape or sanctuary-management conditions.

Dr Mandy Tocher

Appendix 1: Suggested Wildlife Act Conditions

The following suggested condition topics identify matters that in my opinion would need to be secured if Wildlife Act approval is granted.

- a) **Certified LMP required before works.**
- b) **Scope of authorisation.**
- c) **Objectives and outcomes.**
- d) **Suitably qualified and experienced herpetologists.**
- e) **Mapped detections, survey coverage, and identification verification.**
- f) **Avoidance and pre-works clearance.**
- g) **Salvage timing, methods, and effort.**
- h) **Temporary holding.**
- i) **Release-site certification and sanctuary sufficiency.**
- j) **McCann's skink.**
- k) **Unexpected or higher-risk species.**
- l) **Predator, mouse, and habitat management.**
- m) **Monitoring approvals.**
- n) **Monitoring, performance measures, and reporting.**
- o) **Adaptive management, contingencies, and incident response.**
- p) **Review and amendment.**
- q) **Lizard compensation plan.**

