

Before the Independent Hearing Panel

In the Matter of the Resource Management Act 1991 (**RMA**)

And

In the Matter of an application to the Central Otago District Council and Otago Regional Council for resource consent to establish and operate a gold mining activity at 1346 – 1536 Teviot Road, Millers Flat

Reference RC230325 (Central Otago District Council)
RM23.819 (Otago Regional Council)

**Evidence of Simon Chapman on behalf Hawkeswood Mining Limited
(Lizard Ecology)**

Dated 29 April 2024

Jeremy Brabant
Barrister
Foundry Chambers
Level 4, Vulcan Buildings
PO Box 1502, Shortland St
Auckland City
021 494 506
Email: jeremy@brabant.co.nz

Introduction

1. My full name is Simon Percival Chapman. I am a terrestrial ecologist and I hold a BSc (Ecology) and PGDip (Applied Ecology) from Lincoln University. My post-graduate studies were focused on indigenous terrestrial fauna, including indigenous lizards.
2. I have over 20 years' experience as a terrestrial ecologist and for the last 15 years I have held principal ecologist roles. My current role is Ecology Manager and Principal Ecologist for Ecology New Zealand Limited. I have previously worked in similar Principal-level ecology leadership roles for Golder Associates Ltd (2014 to 2016), 4Sight Consulting (2013 to 2014), and Boffa Miskell (2007 to 2013). Prior to that I owned and managed Envirologic Limited, an ecological consultancy, from 2003-2007.
3. During my career I have provided ecological assessment and management expertise on many projects including some of the most complex and large-scale projects across New Zealand. Examples include mines and quarries, landfills and cleanfills, State Highway roading projects, wind farms, hydro-electric schemes, and residential developments. While I am a generalist terrestrial ecologist, I often provided advice and evidence on highly specialised topics such as herpetology (the study of reptiles and amphibians) as such expertise is scarce. My current and recent projects include Auckland Regional Landfill, Taumatotara Wind Farm, Pukekohe Strategic Transport Notices of Requirement, SH1 Cambridge to Piarere, and Kings Quarry.
4. I have recently co-authored papers on regional threat rankings for herpetofauna, and I am a co-author of the Lizard Management Toolkit published by the Society of Reptiles and Amphibians in New Zealand (SRARNZ). I am a member of SRARNZ and the Environment Institute of Australia and New Zealand.
5. I was instructed by Hawkeswood Mining Limited in April 2024 to assess the indigenous lizard values of the Project footprint. This was to address concerns raised in a submission and picked up in the Section 42a report. I

am familiar with the area to which the application for resource consent relates. I have visited the site on Monday 24 April 2024 to assess lizard habitat and carry out a visual survey for lizards.

6. Although this is not a hearing before the Environment Court, I record that I have read and agree to and abide by the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. This evidence is within my area of expertise, except where I state that I rely upon the evidence of other expert witnesses as presented to this hearing. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed.

Scope of Evidence

7. My evidence will address the following:
 - a. An assessment of the significance of the site's lizard habitats and communities;
 - b. An assessment of the Project's likely effects on indigenous lizards; and
 - c. Lizard management recommendations.
8. This evidence provides the results of an on-site lizard habitat assessment and a visual search for indigenous lizards.

Assessment Methodology

9. To assess the site's lizard habitat values I initially undertook a desktop assessment by accessing lizard records held in the Department of Conservation's Herpetofauna database. I also viewed recent high-resolution site photos and aerial imagery (UAV and satellite) to identify potential lizard habitats.
10. The second step in my habitat assessment was a site visit I undertook on Monday 24 April 2024. I spent several hours walking over the site verifying my desktop assessment by visually assessing the potential lizard habitats

previously identified. While on-site, I also carried out visual searches for lizards within any habitats I considered could be suitable for lizards.

Habitat Assessment Results

11. The desktop assessment identified that the vast majority of the site does not provide suitable habitat for indigenous lizards. The site is dominated by grazed pasture with no cover or dense vegetation that would typically provide suitable microhabitats for lizards. The best habitats in the areas are outside the Project footprint, such as along the riparian margins of the Clutha River.
12. The site visit confirmed that lizard habitat availability is confined to several small patches of rocky habitat at the northern end of the site. Specifically, an area of (many decades) old mine tailings provide suitable habitat for indigenous skinks where a combination of gravel, scattered larger rocks, and vegetation have created suitable microhabitats (Figure 1).
13. A small area with piles of larger rocks (apparently the remnants of sluicing carried out many decades ago) has a combination of larger rocks with crevices beneath that appear suitable for indigenous geckos, especially where scrubby vegetation is present (Figure 1). Note that suitable microhabitats for lizards are present as small, scattered patches within the habitat areas shown in Figure 1.
14. Overall, I consider the extent of lizard habitat to be very limited on-site. Furthermore, where I identified potentially suitable habitat, few suitable microhabitats were present.

Visual Assessment Survey Results

15. While assessing microhabitats within potential lizard habitats on-site, I observed a kōrero gecko (*Woodworthia* "Otago/Southland large") within the rocky sluicing deposits. I also observed three McCann's skinks (*Oligosoma maccanni*) within the area of old mine tailings.

Assessment of Effects

16. Kōrero gecko has a conservation status of At Risk – Declining. However, there is little suitable habitat for geckos on-site therefore I consider it highly unlikely that the site provides habitat for a viable population of kōrero gecko. There was no evidence of the large aggregations of this species often observed within its distribution strongholds.
17. McCann’s skink is classified as Not Threatened. While three individuals of this species were observed during microhabitat assessments, the area of suitable habitat on-site is small. Furthermore, the riparian margins of the Clutha River are likely to be the stronghold for this species in the local area, as well as a source for skinks dispersing across the landscape.
18. The proposal to mine the site includes the stripping of vegetation, topsoil and overburden from the surface, which is when any remaining areas of lizard habitat on site will be impacted.
19. In my opinion the site’s lizard values are low, and in the context of lizard populations across the species’ range, the project is highly unlikely to have a significant adverse effect at the local population level for the species present.
20. A Wildlife Act authority may be required to avoid injuring or killing individual lizards. This does not have any implications for the degree of effect in terms of an RMA assessment.

Recommendations

21. While I am of the view that effects management is not required for lizards in this case, I note that an ecological restoration is a core component of the draft Mine Site Rehabilitation Plan (MSRP) prepared by Enviroscope Limited. The draft MSRP includes provision for appropriate expert input including a biodiversity/ecology expert and a specialist herpetologist. The version of the draft MSRP I have read (Rev A, dated 26/04/2024) provides for ecological restoration that I consider likely to benefit local lizard populations (e.g., the four proposed biodiversity cluster planting areas and

pest animal control). However, I recommend that a suitably quality herpetologist should carry out a comprehensive review of the MSRP and provide feedback to be incorporated into the final version.

22. I recommend that the applicant applies to DOC for a Wildlife Act authority to relocate indigenous lizards away from the Project footprint and into protected habitat nearby (e.g., the riparian margins of the Clutha River). This is, however, a separate process that sits outside of consenting under the RMA.

Submissions

23. One submission raises herpetological matter relevant to my area of expertise.
24. The submission by JP Clarke, KL Franklin, and FG Works Limited states that skinks have been regularly observed on their property. The submission also states that no assessment of biodiversity has been provided with the application and that the National Policy Statement for Indigenous Biodiversity (NPS-IB) is now in force and must be given effect to in the Council's decision on the application. Policy 8 and Clause 3.16 of the NPS-IB were referred to by the submitter as they require the management of adverse effects on indigenous biodiversity outside of significant natural areas.
25. This evidence provides an assessment of effects on indigenous lizards in accordance with the NPS-IB. Specifically, I have applied the NPS-IB effects management hierarchy and considered the significance of the site's lizard values independently of SNA maps as part of my assessment of the proposal. Lizards do not fall under other NPS-IB provisions such as specified highly mobile fauna under clause 3.20.

ORC Section 42A Report

26. I have read the ORC Section 42A report and it does not raise any issues in relation to indigenous lizards.

CODC Section 42A Report

27. The CODC Section 42A report stated that insufficient evidence was provided to demonstrate that the potential effects on fauna, in particular on skinks, will be appropriate. It went on to highlight that it was not possible to conclude that the proposal will protect significant habitats of indigenous fauna because a submission (addressed above) mentioned the presence of skinks in the wider area, and the applicant did not provide evidence to the contrary. My evidence responds directly to those matters.
28. This evidence provides an assessment of the site's significance for lizards, including consideration of the effects of the Project on local lizard populations and habitats as well as consideration of the wider lizard context. While some lizards are present on-site, I do not consider that the Project will have a significant adverse effect on local lizard populations and habitats. Much better-quality habitat is available off-site, and only a tiny proportion of locally available habitat will be impacted. Therefore, based on my assessment of the site and surrounding habitat, I conclude that the Project's effects on any potential lizard habitat is low.

Conclusion

29. While some lizard habitat is present on-site, it is only present in small areas where very specific conditions occur. The assessment of suitability of those small habitat areas was confirmed through lizard observations on-site. While I consider that lizard management may be required for Wildlife Act compliance, I do not consider that the Project's adverse effects on indigenous lizards constitute a significant effect for the purposes of the

consenting process because the site does not provide significant habitat for indigenous herpetofauna.

A handwritten signature in black ink, appearing to read 'Simon Chapman', with a stylized flourish at the end.

Simon Chapman

Dated 29 April 2024

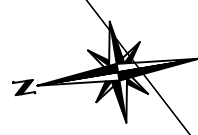


FIGURE 1

Stage 2
17.4ha

Old Slucings Area

Old Dredge
Tailings Area

- - - - - Stage Boundaries (various colours)
- Old Dredge Tailings Area
- Old Slucings Area

ORIGINAL SIZE A3

File Ref:

Prepared For:

Hawkeswood Mining

No.	Amendments	Drawn	Date

Potential Lizard Habitat Areas

Millers Flat Alluvial Gold Mine

Project No.:		Surveyed:	
Scale:	1:2500	Designed:	
Date:	29/04/2024	Drawn:	JR
Sheet:	1	Checked:	

