

OCEANAGOLD (NEW ZEALAND)
LIMITED

WAIHI NORTH PROJECT

Terrestrial Ecology

Evidence of Katherine Muchna
Regarding Technical Assessment of
Terrestrial Ecology of the WUG Effects
and Proposed Conditions

7 February 2025

INTRODUCTION

My name is Katherine Julie Muchna.

My role in relation to the Waihi North Project (“**WNP**”) has been to provide expert advice in relation to Terrestrial Ecology. I wrote the *Terrestrial Ecology Values and Effects of the WUG* which is provided within *Part H – Supporting Technical Assessments* of the application.

This evidence has been prepared to accompany the application by Oceana Gold (New Zealand) Limited (“**OGNZL**”) for approvals required for the WNP under the Fast-track Approvals Act 2024 (“**FTAA**”). It has been prepared on the understanding that the process for determining applications under the FTAA does not require a hearing to be held, and accordingly the purpose of this evidence is to confirm that, relative to my area of expertise the *Terrestrial Ecology Values and Effects of the WUG* provides an appropriate description of the relevant environment, the proposed activities comprising the effects of the WNP on that environment, and the way those effects are proposed to be managed.

My findings are set out in full in the *Terrestrial Ecology Values and Effects of the WUG* included within *Part H – Supporting Technical Assessments* of the application.

While this application is not being considered by the Environment Court, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing this evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

QUALIFICATIONS AND EXPERIENCE

I hold the qualifications of Bachelor of Science (Ecology and Chemistry) from the University of Otago, and a Master of Science (Environmental Science) from the University of Auckland. I am a Certified Ecology Practitioner (“**CEnvP**”) with the Environmental Institute of Australia and New Zealand. My area of expertise is herpetology, and terrestrial ecology impact assessment. I have more than 20 years’ experience as an ecologist.

I am currently employed as an Ecologist – Senior Principal at Boffa Miskell Limited and have held that position since 2022.

My previous work experience includes a diverse range of projects in energy generation, mining, urban development and road projects. My relevant experience in large scale projects includes development and execution of a lizard management plans for the Transmission Gully roading project; ecological expertise (herpetology) for the Southern Corridor

improvements project; and ecological assessment and management for Huia Water Treatment Plant. I have worked on projects for OceanaGold since 2016 and have undertaken and overseen ecological fieldwork in Wharekirauponga since 2017.

In providing this evidence in relation to Terrestrial Ecology, I have considered the following matters as relevant to that topic:

- (a) The project description provided by OGNZL as set out in Section 2 of the Substantive Application prepared by Mitchell Daysh Limited;
- (b) The description of the existing environment, the effects of the WNP on that environment and their significance, and the proposals to manage those effects all as set out in the assessment of environmental effects accompanying the application;
- (c) The technical assessments of:

Wharekirauponga Underground Mine – Air Discharge Assessment, Beca, 2025.

Technical Review of Air Quality Assessments, Tonkin+Taylor, 2025.

Assessment of Groundwater Effects – Wharekirauponga Deposit, WWLA, 2025.

OGNZL Wharekirauponga Mine: Assessment of Effects on Native Frogs, RMA Ecology, 2025.

Proposed Wharekirauponga Underground Mine – Native Frog Effects Assessment, Bioresearches, 2025.

Pest Animal Management Plan – Wharekirauponga Compensation Package, Boffa Miskell, 2025.

Estimating the Proportion of the Coromandel’s Archey’s Frog Population in the Area Affected by Vibrations from the Proposed Wharekirauponga Underground Mine, Lloyd, 2025.

Analyses of the Results of Surveys for Hochstetter’s Frogs Undertaken in 2024 to Assess the Impacts of Stream Flow Reductions Associated with the Wharekirauponga Underground Mine, Lloyd, 2025.

OGNZL Wharekirauponga Mine: Overall Summary of Ecology Matters, RMA Ecology, 2025.

Assessment of Environmental Effects: Lighting, Pedersen Read, 2025.

Blasting and Vibration Assessment, Heilig, 2025.

Assessment of Noise Effects, Marshall Day, 2025.

CONFIRMATION OF CONTENTS OF REPORT AND PROPOSED CONDITIONS

I confirm that in my opinion the *Terrestrial Ecology Values and Effects of the WUG* contains an accurate and appropriate description of the environment, the actual and potential effects

of the WNP, and the recommended actions to manage those effects within my area of expertise.

I confirm that in my opinion the contents of the *Terrestrial Ecology Values and Effects of the WUG* may be relied on in making a decision on the approvals sought for the WNP, and confirm that provided effects within my area of expertise are managed as proposed in the application those effects will not be unacceptable and will be managed to a standard that I consider meets good practice.

I confirm that I have reviewed the conditions that OGNZL proposes for the various approvals being sought as they relate to my area of expertise. I confirm that in my opinion those proposed conditions are appropriate.

Katherine Muchna

Dated this 7th day of February 2025