Before a panel appointed under the Fast-track Approvals Act 2024 **FTAA-2504-1046**

UNDER	the Fast-track Approvals Act 2024 (**Act**)
IN THE MATTER	an application for approvals for the Waihi North Project (**WNP**) – a listed project described in Schedule 2 of the Act
BY	**OCEANA GOLD (NEW ZEALAND) LIMITED Applicant**

STATEMENT OF EVIDENCE BY DYLAN VAN WINKEL ON BEHALF OF OCEANA GOLD (NEW ZEALAND) LIMITED

Native frogs

Dated 1 September 2025

Counsel acting:
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Introduction

1. My full name is Dylan van Winkel. My qualifications and experience, and my role in the Waihi North Project (**WNP**), are set out in my statement of evidence dated 5 February 2025 included in Part G of the substantive application document for the WNP.

2. I have been asked by OceanaGold (New Zealand) Limited (**Oceana**) to provide a response to the specific matters contained in written comments on the WNP application from persons invited by the Panel to comment under section 53 of the Act:

   a. Hauraki District Council consent conditions.

   b. Statement of evidence of Hamish David Kendal on behalf of Coromandel Watchdog of Hauraki – Ecology, dated 19 August 2025.

   c. Brief of evidence of Luke Easton, dated 18 August 2025; included in the comments from Coromandel Watchdog of Hauraki.

   d. Evidence of Professor Bruce Waldman, dated 22 August 2025; included in the comments from Coromandel Watchdog of Hauraki.

   e. Comments on a project under the Fast-track Approvals Act 2024 – Department of Conservation.

3. I have prepared this statement within the limited time available to me. Consequently, it is necessarily at a high level. I am able to provide a more fulsome response to the issues covered in this statement if the Panel requires further assistance from me.

Code of conduct

4. I confirm that I have read the code of conduct for expert witnesses contained in section 9 of the Environment Court Practice Note 2023 and have

complied with it in preparing this evidence. I confirm that the issues addressed in this evidence are within my area of expertise, and I have not omitted material facts known to me that might alter or detract from my evidence.

Hauraki District Council consent conditions

5. I agree with the proposed Condition 176 b i to include monitoring of surface vibration effects on Hochstetter's frogs from underground blasting. Though I note that site selection would be important to be able to disentangle the differences between any potential dewatering / wetted width and blasting effects, especially for streams closest to the blasting sites (i.e. because this is where vibration effects are expected to be highest but so are potential dewatering / wetted width effects).

6. I agree with proposed Condition 176 c. that baseline monitoring of frogs for two years should be undertaken.

Evidence of Hamish Kendal

7. Mr Kendal, at paragraph 30, raises concerns that dewatering effects of mining will dry the forest interior and reduce leaf litter.

8. I rely on the evidence provided by the groundwater modelling that predicts that the extraction of deep groundwater for mine dewatering is expected to have minor or negligible effects on groundwater levels in the shallow aquifer system (discussed in the B27 report).[1] This is because the deep ("EG Vein") aquifer is considered to be disconnected or very weakly connected to the shallow aquifer (discussed in the B33 and B27 reports).[2]

[1] B.27 Williamson Water and Land Advisory *Assessment of Groundwater Effects – Wharekirauponga Deposit*.

[2] B33 Flo Solutions *FY2023 Hydrogeology Support for WUG*; B.27 Williamson Water and Land Advisory *Assessment of Groundwater Effects – Wharekirauponga Deposit*.

9. Since soil moisture supporting vegetation and frog habitat is primarily rainfall-derived, adverse effects on habitat quality or frog populations are not anticipated, as described in section 6 of the B39 report.[3]

Brief of evidence of Luke Easton

10. Mr Easton says at paragraph 2 of his evidence that suggesting no impact from vibration on leiopelmatid frogs is “nonsensical.”

11. I agree that such a conclusion is unjustified given limited literature on vibration effects on frogs. However, I did not conclude no impact. As outlined in section 8 of the B39 report, it is considered highly unlikely that measurable adverse effects on frogs above the Wharekirauponga Underground Mine would result from blast vibrations or dewatering.

12. Mr Easton suggests that sampling bias undermines Whitaker & Alspach’s (1999) conclusion that the Golden Cross Mine had no discernible impact on frog populations.

13. However, as detailed in section 5.5.1 of the B39 report, while sampling bias may have affected relative abundance estimates, Whitaker & Alspach (1999) found no evidence that population structure or recruitment was influenced by sampling bias—supporting their conclusion that mining activities did not affect frog populations or habitat in the study streams.

Evidence of Professor Bruce Waldman

14. Prof. Waldman asserts at paragraph 19 of his evidence that the proposed mining is incompatible with the survival of New Zealand’s endemic frog species.

15. I disagree and believe that it is highly unlikely that the activities (vibration and dewatering) will cause population declines or extinction of leiopelmatid

[3] B39 Bioresearches *Proposed Wharekirauponga Underground Mine Native Frog Effects Assessment*.

frogs in the Coromandel or nationally. On the contrary, the proposal includes pest control across 632 ha of frog habitat, expected to deliver net conservation benefits for *Leiopelma* populations.

Comments on a project under the Fast-track Approvals Act 2024 – Department of Conservation.

16. The Department says at paragraph 34 that it disagrees as to the extent to which leiopelmatid frogs will be affected by the vibrations.

17. While I acknowledge there is uncertainty around frog response thresholds, I consider measurable adverse effects from mine-related blasts to be highly unlikely as set out in section 5 of the B39 report.

18. With reference to the Department's paragraph 35 about abandonment of shelter, I agree that abandonment of shelters and egg clusters could impact frog health and recruitment. However, the key issue is identifying the disturbance threshold that triggers a measurable response. Forest-dwelling frogs are regularly exposed to vibrations from trampers, pests (e.g., pigs and pig rooting, deer), and vehicles (several roads bisect Archey's frog habitat in the Coromandel). The Department's reference to "disturbance" lacks clarity on type, magnitude, and duration, making the assessment of thresholds and types of disturbance difficult.

19. My opinion, which is based on available evidence, is that mine vibration is unlikely to adversely affect frogs is detailed in section 5 of the B39 report. Uncertainty surrounding potential effects will be addressed through monitoring and 632 ha of pest control across frog habitat, which is expected to deliver net conservation benefits for *Leiopelma* populations (as outlined in the B38 report).[4]

[4] B 38 RMA Ecology Limited *OGNZL Wharekirauponga mine: Assessment of effects on native frogs.*

20. I agree with the Department's comments at paragraph 36 that Hochstetter's frogs are likely have greater tolerance to ground shocks and vibrations. While uncertainty remains around potential effects of vibration, I consider the risk to be low, based on the analysis set out in the B39 report.

21. The Department has suggested that subsidence and slumping, altered water flows, water-table lowering, and fracturing of surface and sub-surface rocks would significantly modify the leiopelmatid frogs' semi-aquatic and terrestrial habitats.

22. Both EGL report that assessed ground surface settlement[5] and the evidence of Trevor Matuschka (the author of the EGL report) note that ground settlements at the WUG area would be indistinguishable on the surface and would have no material effect on forest vegetation or stream flow (outlined in the B.13 report). This provides me with confidence that *Leiopelma* frog habitats in the WUG would not be adversely affected by land subsidence or slumping.

23. In regard to dewatering, I have responded to this topic in my response to Mr Kendal above. In summary, soil moisture supporting vegetation and frog habitat is primarily rainfall derived and will not be affected by the WNP.

Dated: 1 September 2025

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Dylan van Winkel

[5] B.13. Ground settlement report. EGL, and Trevor Matuschka's statement of evidence dated 1 September 2025 from paragraph 25 onwards.