

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 CASSANDRA TAMSIN MCARTHUR ON
BEHALF OF OCEANA GOLD (NEW ZEALAND) LIMITED**

Department of Conservation Approvals

Dated 1 September 2025

Counsel acting:
Stephen Christensen
Project Barrister
P 027 448 2325
stephen@projectbarrister.nz

Introduction

1. My full name is Cassandra Tamsin McArthur. I am the Superintendent – Environment for the Waihi North Project (**WNP**) at OceanaGold (New Zealand) Limited (**OceanaGold**) and have worked on various aspects of the Waihi North Project since I started at OceanaGold Waihi in 2018, including coordinating teams of ecologists undertaking native frog surveys to select drill sites at Wharekirauponga. I have spent more than 10 years working as an environmental professional in New Zealand, having been previously employed at the Department of Conservation (**DOC**). I hold a conjoint bachelor's degree in science and commerce from the University of Auckland.
2. My evidence provides a response to some specific matters contained in written comments on the WNP application from persons invited by the Panel to comment under section 53 of the Act that are within my knowledge:
 - a. Department of Conservation: Section 51 FTAA report Appendix D Wildlife Approval.
 - b. Department of Conservation: Section 51 FTAA report Appendix F Access Arrangement report.
 - c. Department of Conservation: Section 51 FTAA report Appendix C Concession Report.
 - d. Department of Conservation: Section 53 FTAA report.
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 acknowledge I am employed by OceanaGold. This has not prevented me from complying with the code of conduct. Instead, OceanaGold authorised me to prepare this statement in accordance with the code of conduct.
5. 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.

Site selection and salvage translocation process

6. In DOC's section 51 Access Arrangement report at paragraph 69 – 71 and section 53 comment document at paragraph 172 – 176, DOC state their preference to have detailed ecological survey undertaken at every proposed drill site location and suggest a 6 m buffer should be implemented around each frog found during pre-vegetation clearance ecological survey at all drill sites. Detailed comments on the site selection and salvage translocation process proposed by OceanaGold were also presented in the DOC section 51 Wildlife Act Authority report.
7. Below, I outline the operational and practical reasons for implementing the site selection processes that OceanaGold have proposed in its application and associated consent conditions.
8. Under OceanaGold's current Access Arrangement (**AA**), 102 potential drill sites have been surveyed for native frogs and lizards. Of these 102 sites surveyed, only 10 sites have been found that meet the requirements of AA conditions related to native frogs (i.e. 4 or less frogs located within a 20 m x 20 m survey area, a 6 m buffer applied around each frog found, 6 m buffer at least 25% connected to surrounding habitat).

9. Approximately 75 sites have been ruled out due to 5 or more frogs being found during pre-clearance surveys. In the remainder, less than 5 frogs were found during pre-clearance surveys, but a sufficiently sized area to accommodate a drill rig could not be located within the 20 m x 20 m survey area once a 6m buffer was applied around each frog found. In some cases, only one frog was found in the 20 m x 20 m survey area, but due to it being found in the centre of the survey area, a drill site still could not be located within the remainder of the survey area once the 6 m buffer was applied.
10. Surveys must occur at least three times at each potential site, and can only be undertaken between March and September, when overnight temperatures are above 12 degrees Celsius, and it is raining or has been raining during the day. This presents a significant time and cost to find a single site that meets the requirements of the AA conditions. OceanaGold has also spent at least \$630,000 on ecologist field surveying costs alone. This does not include reporting costs, helicopter support, ecologist supervision of vegetation clearance, or accommodation costs associated with site selection surveys.
11. It often takes 4-5 months to locate a site that fulfils all survey and ecological requirements, and in some seasons, surveys cannot be undertaken at all due to the conditions requiring surveys to be undertaken in specific climatic conditions and only at certain times of the year.
12. OceanaGold has located and handled approximately 625 native frogs during site selection surveys since 2017, most of these in the 92 sites that have eventually been disqualified from use due to failure to meet the requirements of the AA fauna surveying conditions.
13. OceanaGold has often had to locate drill sites in sub-optimal positions to access the orebody to avoid native frogs. This causes increased drilling costs due to extended drill hole lengths and the need for specialised directional drilling equipment and crews. Often, these sites have only been used for a few months due to their limited ability to provide access to the

orebody, and alternatives need to be found. In contrast, where sites have been able to be located in areas that are optimal for access to the orebody, the sites have been in use for the full seven years that the AA has been active.

14. In my opinion, if drill sites were in suitable locations for accessing the orebody from the outset, significant cost savings could be achieved, while also reducing unnecessary handling of native frogs in sites that end up being disqualified. Vegetation clearance at sites that are sup-optimal for accessing the orebody and are only used for months, rather than years, would also be reduced.
15. Due to the impracticalities of locating suitable drill sites under the existing AA conditions noted above, and considering updated estimates of the Archey's frog population size since the AA conditions were developed in 2016, OceanaGold has sought to make site selection conditions more practical, based on advice from its technical experts.
16. An updated process for site selection and salvage translocation was submitted with the Fast-track application in April 2025. This proposed process involved removing the requirement for three nights/days of frog survey ahead of vegetation clearance and instead focused on rating site suitability based on a multi-criteria assessment tool, including a category for native frog habitat. Salvage translocation of any individual frogs found in drill sites during vegetation clearance into a pre-prepared pest-controlled area would occur. The salvage translocation process was designed by ecologists to overcome many of the issues often associated with previous herpetological translocations.
17. In subsequent technical workshops with DOC, OceanaGold received feedback that DOC's preference is to retain measures that avoid native frogs ahead of drill site selection. In revised conditions provided to DOC, OceanaGold has incorporated this feedback as far as is practicable.

18. For the four Vent Sites / Pumping Test sites, due to the potential size of the sites (up to 30 m x 30 m) required to ensure safe construction and ongoing stability of the vent shaft, pre-vegetation clearance fauna surveys with an associated 'frog limit' and buffer around each frog found is not workable; it would not be possible to find a site this large with no or few frogs present. Therefore, OceanaGold has retained the multi-criteria analysis site selection process and the carefully planned and implemented salvage translocation for these sites where complete avoidance of frogs cannot be implemented. It should be noted that the 30 m x 30 m size for these sites is a maximum, and if possible, the size of the vegetation clearance will be smaller and the number of frogs requiring salvage translocation would likely be lower.
19. For all other types of sites (20 exploration and investigative sites and 50 portable rig sites) OceanaGold has reverted to an avoidance approach where pre-vegetation clearance surveys are undertaken to ensure sites are located in areas of low frog densities, and frogs are avoided at an individual level by applying a buffer around each frog found where vegetation clearance cannot occur.
20. OceanaGold has proposed an amendment to the conditions of the Access Arrangement to reduce the number of sites that have to be disqualified from use despite having a low density of frogs (i.e. less than 5 frogs), because implementing a 6m buffer around each frog means there is not enough area left in the 20 m x 20 m survey area to install a drill platform. Figure 1 shows how applying a 6 m buffer can rule a site out, when only one frog is found in the site.

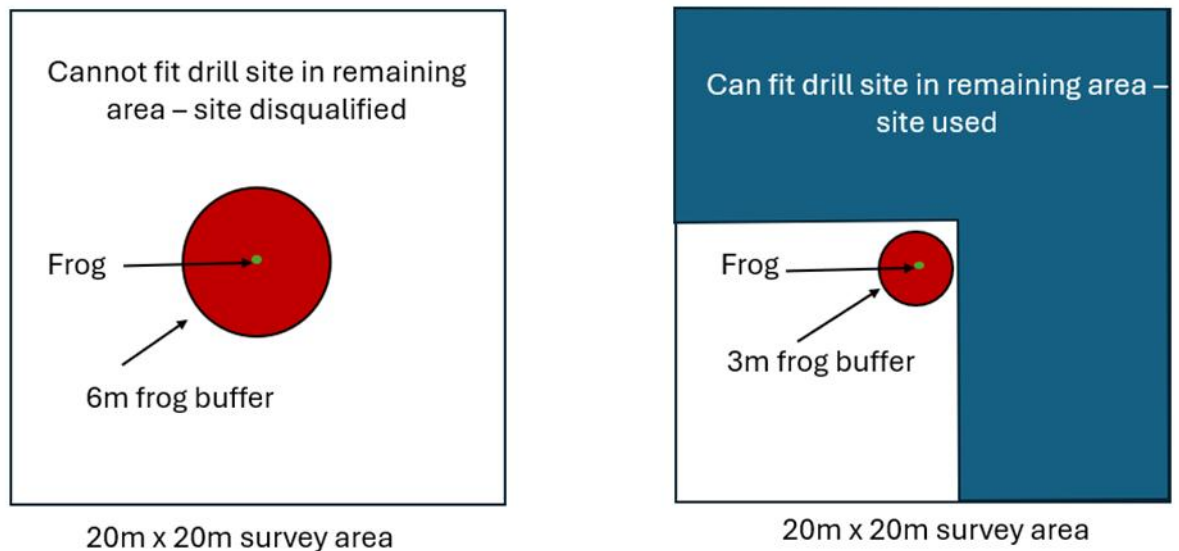


Figure 1: Effect of implementing a 6m buffer instead of a 3 m buffer around frogs found within potential drill site areas.

21. In my opinion, applying a 3m buffer around each frog, instead of a 6 m buffer, would still provide protection for individual frogs, and at the same time would provide a higher chance of drill sites being located in appropriate locations, thereby reducing the number of frogs handled in sites that go on to be disqualified and associated survey costs and time.
22. In my opinion, the conditions proposed by OceanaGold for site selection and salvage translocation will provide sufficient operational flexibility and practicality to put sites in appropriate locations, while still avoiding native frogs as much as possible. Where frogs cannot be avoided, a well-designed salvage translocation process will be implemented.
23. A team of independent ecologists have advised OceanaGold on the matters above and have accepted the approach to site selection and salvage translocation as being appropriate and sufficiently conservative.

Exclusion criteria

24. In DOC's section 53 comment document, at paragraph 173 DOC note that the multi-criteria assessment (**MCA**) tool used to assess potential drill site

suitability does not contain exclusion criteria, which is inconsistent with a desired outcome of avoiding effects on a species.

25. While it is correct that the MCA does not include exclusion criteria, exclusion criteria are included in the proposed conditions of the Wharekirauponga AA and the Northern Concession. These include minimum setbacks from streams, wetlands, and public walking tracks. They also include requirements to disqualify a proposed drill site from use if a certain number of a threatened species are found within a proposed survey site. This is a similar approach to the conditions of OceanaGold's existing AA.

Northern concession

26. DOC provide comment, at paragraphs 139, 142 and 147 of their section 51 Appendix C Concession Report, that the activity for which a concession is sought is inconsistent with the Conservation General Policy, the Coromandel Peninsula Conservation Land Management Plan 2002, and the Waikato Conservation Management Strategy.
27. I find these comments surprising, given that OceanaGold holds an existing concession for similar activities in the same area, and these activities were deemed to align with DOC's general policy and statutory planning documents when the concession was granted. The activities for which an existing concession is held include the installation of near-stream piezometers and the installation of a telemetry system.
28. At paragraphs 124 – 126 of the section 51 Appendix C Concession Report, DOC note that they need further explanation to assess whether a licence conferring an interest in land should be granted.
29. I confirm that a licence is required for activities in the Northern Concession area, however the licence required does not need to confer an interest in land. This is consistent with OceanaGold's existing concession held for similar activities in the same area.

Recreation values

30. In paragraph 61 of DOC's section 53 comments document, DOC states that *"without proper site selection protocols for drilling activities, there could be adverse effects on heritage and recreation"*.
31. The proposed Wharekirauponga AA and Northern Concession conditions require minimum set back distances from the public walking track, a cessation of drilling activity within 400m of the public walking track during the busiest period of the year, and signage and demarcation to make the public aware of the drilling activity.
32. The measures are consistent with conditions of OceanaGold's current AA with DOC, and based on advice from OceanaGold's recreation expert, are adequately protective.

Heritage features

33. DOC states in paragraph 173 of the section 53 comment document that *"no conditions require any additional effects assessment on heritage features beyond the site selection protocol include their avoidance. This creates an unacceptable and unmitigated risk those features will be impacted by exploration or mining activities and associated operations"*. This is incorrect.
34. The Site Selection Protocol requires OceanaGold to engage a suitably qualified and experienced archaeologist to assess if there are any known archaeological or other historic heritage features, or a likelihood of unidentified archaeological or other historic heritage features within 500m of the shortlisted investigative drill sites and ventilation shaft sites.
35. If heritage features were found, or were likely to be found, in the vicinity of a proposed work site, the site would be given a 'red' score according to the MCA. If, for operational reasons, OceanaGold still needed to use the site,

an archaeological authority would be required, and effects on heritage features would be assessed at that stage. DOC, as a requirement of the archaeological authority application process, would be consulted at this point.

36. Accidental discovery protocols are also provided for in the proposed conditions of consent.

Dated: 1 September 2025

Cassandra McArthur