

**Before an Expert Panel
Bendigo-Ophir Gold Project**

FTAA-2507-1089

Under the

Fast Track Approvals Act 2024

In the matter of

an application for approvals to
establish, operate, and remediate an
open pit and underground gold mine
at Bendigo and Ardgour Stations

By

Matakanui Gold Limited

Applicant

**SUPPLEMENTARY STATEMENT OF EVIDENCE OF PROFESSOR JENNIFER WEBSTER-
BROWN**

RESPONSE TO RFI11 INFORMATION – WATER QUALITY

7 Sept 2026

Environmental Defence Society Inc

PO Box 91736 Victoria Street West Auckland 1142

Shay Schlaepfer, COO

Email: [REDACTED]

Counsel Acting

Rob Enright

Email: [REDACTED]

Jen Vella

Email: [REDACTED]

Table of Contents

<i>Introduction</i>	<i>3</i>
<i>Code of Conduct</i>	<i>3</i>
<i>Materials reviewed for evidence</i>	<i>3</i>
<i>Scope of evidence</i>	<i>5</i>
<i>RFI 11 Item 1. Baseline surface water quality</i>	<i>6</i>
<i>RFI 11 Item 2. Groundwater characterisation and modelling.....</i>	<i>7</i>
<i>RFI 11 Item 3. Water Load Balance Model (WLBM)</i>	<i>8</i>
<i>RFI 11 Item 4. Models calibrated against existing conditions</i>	<i>10</i>
<i>RFI 11 Item 5. Effects assessment for the Ardgour & Bendigo aquifers</i>	<i>10</i>
<i>RFI 11 Item 8. Revised compliance limits</i>	<i>11</i>
<i>RFI 11 Item 9. Ecotoxicity of pit lakes and TSF wetland.....</i>	<i>12</i>

Introduction

1. My full name is Jennifer Gaye Webster-Brown.
2. I have been asked by the Environmental Defence Society Inc. (EDS) to provide independent expert evidence on how water quality concerns have been addressed in Matakanui Gold Ltd's response to RFI 11, for the proposed Bendigo-Ophir Gold Project (Project) in the Shepherds Creek and Bendigo Creek catchments in the Dunstan Mountains of Central Otago.
3. My experience and credentials of relevance to this evidence have previously been provided in my statement of evidence pertaining to the applicant's original proposal, dated 10 April 2026.

Code of Conduct

4. I have read the Environment Court code of conduct for expert witnesses, and I have prepared this evidence in accordance with that code. I confirm that my evidence is within my area of expertise, except where I state I am relying on the evidence of another person. I have acknowledged the material and expertise relied on in the preparation of this evidence and in forming my opinions. To my knowledge I have not omitted to consider any material facts known to me that alter or detract from the opinions I express in this evidence.

Materials reviewed for evidence

5. In preparing this evidence I have read and reviewed the documents specified below, provided by the applicant in response to the following RFI 11 items raised:

RFI 11 Item 1: Provide further information to understand the downstream catchment's baseline environment (a) water quality.

- Downstream catchment baseline water quality (Palich, Geocontam Risk Management) J-H-NZ0238-006-M-Rev0

RFI 11 Item 2: Provide additional information to better understand the hydrogeological characterisation of the site and wider receiving environment in terms of groundwater and contaminant movement from the site and the ultimate effects on the surface and groundwater receiving environment. This requires additional baseline data collection and modelling, including but not necessarily limited to (a) general hydrogeological field data and (b) 3 dimensional groundwater modelling.

- BOGP Groundwater Site Investigation Memorandum (Burgess, Hydro Geokem Group) J-H-NZ0238-010-M-Rev0

- Updated Groundwater Modelling for Bendigo Ophir Gold Deposit (Kōmanawa Solutions Ltd) Z20111.m3

RFI 11 Item 3: Provide a contaminant load water balance model taking into account the above findings and the full array of potential climatic outcomes for the following phases: (a) operation, (b) active water treatment closure period and (c) passive water treatment closure.

- Operational Phase Site Wide Water and Load Balance Model Bendigo-Ophir Gold Project (Mine Waste Management Ltd.) J-NZ0488-015-R-Rev0

RFI 11 Item 4: All models expected to be appropriately calibrated against existing conditions with consideration of: (a) a range of potential geological scenarios that may realistically be foreseen; and (b) variable environmental conditions which demonstrate the range of effects possible.

- No separate report - information included in other reports

RFI 11 Item 5: The above information is to be reflected in updated expert assessments of the potential adverse impacts on the Ardgour and Bendigo aquifers and the associated surface water environments.

- Response to RFI 11 – Fast track approvals application FTA-2507-1089 – Item 5 (Burgess, Hydro Geochem Group Ltd) J-H-NZ0238-006-L-Rev0

RFI 11 Item 8: Noting that the compliance limits for water quality have been amended in the 22 June 2026 updated Conditions, provide an explanation for the proposed new sulphate and nitrate-nitrogen levels.

- Response to RFI 11 – Fast Track Approvals Application FTA-2507-1089 – Item 8 Sulfate and Nitrate Compliance Limits (Palich, Geocontam Risk Management) J-H-NZ0238-008-M-Rev0

RFI 11 Item 9: Please provide an assessment of the risk of toxic effects to wildlife and humans arising from poor water quality in any surface water expression and how this will be managed, including but not exclusive to the pit lakes and TSF wetland.

- Response to RFI 11 – Fast track approvals application FTA-2507-1089 – Item 9 Ecotoxicology (Palich, Geocontam Risk Management) J-H-NZ0238-009-L-Rev0

6. I have also read the following proposed conditions (dated 28 August 2026), as they relate to water matters in ORC consents.

- Attachment 2 - D.02 - ORC Consents and Conditions (28 August 2026)
- Attachment 2 - D.04 - Schedule Two - General conditions for ORC Consents (28 August 2026)

7. I have read, but have not undertaken a technical review of, the information provided in the Water Resources Impact Assessment Summary report, which is largely based on information previously submitted to support the original application:
- Bendigo-Ophir Gold Project: Water Resources Impact Assessment Summary (EMM Consulting Pty Ltd)

Scope of evidence

8. My main concerns for how the type of mining operation proposed will impact on water quality are:
- That baseline water quality has still not been adequately characterised for either surface water or groundwater at, and downstream of, the proposed mine site.
 - The monitoring methods used for the water quality data which has been provided are not specified. There is no reference to the NZ standards for sampling and measurement of water quality, or to any other recognised procedures. There is evidence that groundwater sampling, at least, has not been undertaken appropriately.
 - I remain very concerned that the concentrations of arsenic in mining impacted waters on site and in receiving waters are underpredicted. “Empirical factors” have been arbitrarily applied to reduce arsenic (and iron) concentrations in source terms and during modelling processes.
 - The compliance limits being proposed to reduce impacts on receiving surface water quality will fail to detect the full extent of contaminants moving off site. There are still important omissions from the list of contaminants and there are no compliance limits proposed for the total concentrations of most trace metal and metalloids.
 - No further information has been provided regarding the nature and potential efficacy of passive treatment as a future (in perpetuity) treatment option for mine impacted water. The WLBM model has been updated only for the mine’s operational phase, and not active or passive treatment phases.
 - Despite the very significant environmental risk being posed by the poor water quality predicted for the residual pit lakes and TSF wetland, no monitoring of these water bodies appears to be proposed.

9. The significant change in outlook for mine water management, specifically that the mine is now predicted to operate at a water surplus rather than a water deficit during the operation phase, has major implications for mine water treatment and for this consenting process. It highlights the extreme uncertainty in the current modelling processes. It also justifies seeking further information and assurances regarding the likely environmental impact of this mining operation.

RFI 11 Item 1. Baseline surface water quality

10. Water quality monitoring data has been provided for a site on Bendigo Creek (SW13) and a site on the Lindis River (SW14)¹. Data has been collected only for winter conditions (June and July 2026) and is therefore *not* representative of baseline water quality. It is clear from the data that these samples were collected during high flow events. A recent storm event is mentioned in the report. Consequently these data are not even representative of baseline *winter* conditions, let alone representative of overall “baseline” water quality. For most flowing waters, at least two years of monitoring data, collected in all seasons, is needed to adequately characterise water quality conditions.
11. The site on the Lindis River is also a monitoring site for ORC, but council monitoring data includes only pH and nutrient and sewage bacteria concentrations. There is no data for other contaminants expected to emanate from a mine site such as cyanide and toxic trace metals. There appears to be no council water quality data available for Bendigo Creek.
12. Except for antimony, iron and selenium, no data for *total* metal or metalloid concentrations (i.e., all metal/metalloid carried in the water - both dissolved *and* bound to suspended sediment) appears to have been collected.
13. No further baseline water quality data has been provided for the downstream compliance monitoring sites (SC01 or RS03). Assurances had previously been given that the collection of data from these sites had been ongoing and there was now sufficient data to adequately characterise baseline water quality at these sites². Although a 3-year median value is provided in a table for the SC01 and RS03 water quality³, suggesting that at least 3 years of data have indeed been collected, there is no indication of sampling frequency and timing, so this is of limited value.

¹ Downstream catchment baseline water quality (Palich, Geocontam Risk Management) J-H-NZ0238-006-M-Rev0

² Joint Statement of Expert Witnesses - Geochemistry/Water Quality/Hydrology/Water Management/Freshwater Ecology. 8&9 June 2026. Section B, points 17-20.

³ Downstream catchment baseline water quality (Palich, Geocontam Risk Management) J-H-NZ0238-006-M-Rev0

14. No information regarding surface water sample collection, preservation and storage methods is provided. Nor is this included for proposed future water quality monitoring at the downstream sites. It is therefore difficult to gauge the reliability of the data provided, or value of the monitoring proposed. Reference to NZ's National Environmental Monitoring Standards (NEMS) or alternative robust procedures for such methods should be made.

RFI 11 Item 2. Groundwater characterisation and modelling

15. Groundwater quality monitoring has been undertaken at 14 monitoring wells, 10 of which are new wells intercepting relatively shallow groundwater, to establish baseline groundwater quality⁴.
16. Both total and dissolved trace metal and metalloid concentrations have been determined in the well waters which is useful. However, samples were collected only once, in winter (in June, July or August), so cannot be considered representative of baseline quality conditions.
17. As for surface water quality, no information is given for sampling methods and no reference made to methods which are proven to provide accurate and reliable groundwater quality data (e.g., NZ NEMS). The high concentration of particulate iron and aluminium observed in all of the groundwaters sampled is usually indicative of inappropriate sample collection methods: Entrainment of extraneous sediment during sample collection and/or the formation of oxides during sampling or sample storage, due to reaction with air. Particulates such as oxides and silicate minerals are not typically transmitted through groundwater systems. Correct well sampling procedures are designed to prevent the inclusion of extraneous sediment and the oxidation of a groundwater by air during sampling. The presence of such particulates suggests misleading information has been collected for iron and aluminium, as well as for other trace metals/metalloids which bind strongly to mineral surfaces or are directly affected by oxidation processes. In the absence of information regarding the sampling methods, it is difficult to have any confidence in these results.

Comparisons with NZ Drinking Water Standards (NZDWS) and ANZG guidelines for irrigation and livestock drinking water are made. It is noted that total aluminium, iron and arsenic concentrations exceeded the NZDWS MAV in some of wells used to determine baseline water quality. However, given the potential sampling issues noted above, the elevated concentrations of these contaminants may instead be due to inappropriate sampling methods being used. These data

⁴ BOGP Groundwater Site Investigation Memorandum (Burgess, Hydro Geokem Group) J-H-NZ0238-010-M-Rev0

cannot therefore be used to justify exceedance of NZDWS for iron, aluminium and arsenic during mine operation.

18. Nor is it correct to state that total zinc exceeds the “aesthetic DW MAV” for zinc for groundwater in both alluvium and fresh or weathered rock⁵. The aesthetic value recommended as an upper limit for zinc concentrations in NZ drinking water is 1500 µg/L or 3000 µg/L, not 3 µg/L as stated. The levels of 4 - 153 µg/L zinc measured in these groundwater wells are well below the recommended aesthetic guideline.
19. Molybdenum was significantly elevated, exceeding ANZG irrigation water guidelines and approaching stock drinking water guidelines, in groundwater in fresh bedrock⁵. This is a potentially concerning result, as I understand this groundwater is part of an aquifer currently used for both for both irrigation and stock drinking water supply. No commentary on this has been provided but an investigation into how this molybdenum concentration would be affected (e.g., further elevated or reduced) by the proposed mining activity is needed.
20. The updated groundwater modelling⁶ assumes conservative contaminant transport, i.e., it does not take account of contaminant reactions or removal from groundwater, or dilution processes. Consequently, modelling contaminant movement through groundwater system(s) is highly dependent on the accuracy of water quality data for groundwater sources and of the hydrological model. My concerns regarding the reliability and accuracy of the baseline water quality data collected so far therefore limit my confidence in the ability of the updated model to accurately model contaminant concentrations throughout the groundwater system.

RFI 11 Item 3. Water Load Balance Model (WLBM)

21. Although the RFI11 requested that WLBM be updated for three phases of the mine life: operation, active treatment closure period and passive treatment closure, only one phase (operation) has been addressed by the applicant⁷. It is stated in the cover letter that the previously provided closure and post-closure contaminant load modelling remains unchanged. However, given the very significant changes to proposed operation that have been made by updating the

⁵ BOGP Groundwater Site Investigation Memorandum (Burgess, Hydro Geokem Group) J-H-NZ0238-010-M-Rev0. Page 11.

⁶ Updated Groundwater Modelling for Bendigo Ophir Gold Deposit (Kōmanawa Solutions Ltd) Z20111.m3

⁷ Operational Phase Site Wide Water and Load Balance Model Bendigo-Ophir Gold Project (Mine Waste Management Ltd.) J-NZ0488-015-R-Rev0

operational WLBM, it seems unlikely that nothing has changed for closure and post-closure model predictions.

22. The most significant change to the WLBM predictions, now taking account of climate variability and new hydrology, hydrogeology, seepage flow and water quality information, is that the mine will operate with a water surplus, rather than a water deficit as previously predicted. This has major implications for mine water treatment and management and casts considerable doubt on the relevance of previously submitted information for proposed mine operation. This also demonstrates the extreme levels of uncertainty in the current modelling process.
23. The WLBM predictions for water quality at compliance sites SC01 and RS03 during mine operation have been compared to the proposed compliance water quality limits. Towards the end of the operational period, antimony and nitrate are predicted to be non-compliant at SC01. I note that cobalt (95%ile) at SC01 is also predicted to exceed the compliance limit, though this is not stated in the report. Molybdenum (95%ile) is predicted to be non-compliant at RS03, which is again not stated in the report. It is clear (and this is stated) that an active engineering control would be required to reduce these concentrations, so an active water treatment plant would now need to be commissioned well before mine closure.
24. Limitations of the current modelling, as it pertains to water quality, include:
 - Empirical attenuation factors have been used to reduce arsenic, iron, copper and molybdenum concentrations in seepage (based on work at Macraes mine by Craw & Pope 2017 and Craw and Nelson 2000). These arbitrary factors reduce arsenic concentrations by 2 orders of magnitude (100 times) and other metals by 1 order of magnitude (10 times). This causes a very significant decrease in measured concentrations, particularly for arsenic, based entirely on evidence from a very different mine site.
 - The PHREEQC computer code has been used to limit iron concentrations in the “mine impacted water” source terms to those expected if certain iron minerals were stable. PHREEQC includes a number of mineral phases for iron that are thermodynamically viable but not actually stable at ambient temperatures. These would unrealistically reduce iron concentrations.
25. Water quality monitoring is recommended to validate source term composition but no methods or standards are specified for this monitoring.
26. A broad assessment of environmental effects has been provided through comparison of SC01 and RS03 predicted water quality with ANZG water quality guidelines for ecological health, and for irrigation and stock drinking water.

Potential limitations on ecological health (due to cobalt, antimony, uranium and, possibly, molybdenum) and on irrigated plant health (due to manganese and molybdenum) are evident. Many other trace metal and metalloids are close to exceeding recommended limits, and the cumulative effect of all of these contaminants has not been assessed but should not be ignored.

27. The effects on groundwater use, assuming groundwater composition is similar to that of SCO1 in the Ardour aquifer and to that of RS03 in the Bendigo aquifer, has been assessed through comparison with NZDWS, and ANZG irrigation and stock drinking water guidelines. Peak antimony concentrations could exceed DWS MAV, and as noted above, irrigated plant health could be impacted by the manganese and molybdenum concentrations. Again, the cumulative effects of multiple contaminants approaching or exceeding limits has not been assessed.

RFI 11 Item 4. Models calibrated against existing conditions

28. This request included consideration of a range of potential geological scenarios that may realistically be foreseen and variable environmental conditions which demonstrate the range of effects possible. No report has been submitted to respond specifically to this request, but the WLBM modelling does purport to take account of climate variability and new hydrology, hydrogeology, seepage flow and water quality information. Without greater insight into the working of the WLBM I cannot comment on whether these factors have been appropriately incorporated into the modelling. However, given the very different “water surplus” scenario that is now predicted for mine operation, it is clear that the WLBM has been significantly updated to include new information.

RFI 11 Item 5. Effects assessment for the Ardour & Bendigo aquifers

29. An updated assessment of potential adverse of the BOGP on the downstream aquifers and associated surface water environments has been submitted, based on the information provided in response to RFI 11 Items 1-4⁸. No new information or data is provided and the conclusions reached are largely the same as those of the source reports.
30. Any assessment of adverse effects on the aquifers and their associated surface waters is still greatly limited by the lack of baseline water quality information and assumptions that have had to be made (in advance of measured data) in the modelling.

⁸ Response to RFI 11 – Fast track approvals application FTA-2507-1089 – Item 5. (Burgess, Hydro Geochem Group Ltd) J-H-NZ0238-006-L-Rev0

RFI 11 Item 8. Revised compliance limits

31. An explanation for the new (22 June 2026) proposed sulfate and nitrate-N levels has been submitted⁹.
32. Previously the compliance limit for nitrate-N was based on the national bottom line for this attribute provided in the NZ National Policy Statement for Freshwater Management (NPSFM, MfE 2020). This limit (2.4 mg/L) has always been contentious, as it is based on nitrate toxicity to fish rather than being protective of overall ecological health. When applied at the BOGP site, it was also well above current nitrate concentrations in the surface waters.
33. The proposed new limit for nitrate-N, based on updated ANZG (2025) guidelines for 90% protection, is 1.5 mg/L for “soft” water. While this is an improvement on the previously proposed limit, to be consistent with the level of protection now being sought for most other contaminants, the nitrate-N limit should seek to be protective of 95% of species present. This limit would be 1.1mg/L, which is the limit proposed in the compliance limits submitted for consenting¹⁰.
34. Previously a sulfate compliance limit of 500 mg/L, based on USEPA criteria, was proposed for both Shepherds Creek and Rise and Shine Creek compliance sites. Now a lower limit is proposed for Shepherds Creek, reflecting the connection between this surface water and Ardour aquifer groundwater which is required to meet the aesthetic value for sulfate in drinking water of 250 mg/L. It is implied that the Bendigo aquifer, which receives recharge water from the Rise and Shine Creek (RS03), is not used as a drinking water supply but no evidence to support this is provided.
35. With regard to other compliance limits proposed in the conditions submitted for consenting¹⁰, I note that the limits still only seek to control *dissolved* concentrations for most trace metals and metalloids, with only a few exceptions (iron, antimony, selenium). Most metals and metalloids carried off the mine site as particulates (i.e., bound to suspended sediments or oxides) will not be controlled. By failing to control *total* concentrations, these compliance limits will fail to prevent the contamination of downstream environments.
36. No surface water compliance limits are included for sulphide or for mercury¹¹. Sulphide can be generated from passive treatment systems

⁹ Response to RFI 11 – Fast Track Approvals Application FTA-2507-1089 – Item 8 Sulfate and Nitrate Compliance Limits (Palich, Geocontam Risk Management) J-H-NZ0238-008-M-Rev0

¹⁰ Attachment 2 - D.04 - Schedule Two - General conditions for ORC Consents (28 August 2026)

¹¹ Attachment 2 - D.04 - Schedule Two - General conditions for ORC Consents (28 August 2026)

receiving sulphate-rich waters such as mine effluent and is highly toxic to aquatic life. Although not particularly elevated in mineralisation at the BOGP site, mercury is bioaccumulative, meaning that relatively low concentrations in water can still result in significant accumulation in aquatic plants and animals. Compliance limits are needed to protect the health of aquatic ecosystems, and to prevent possible bioaccumulation of mercury in the food chain.

37. The compliance limit proposed for boron in SC01 surface water (0.94mg/L) fails to take account of the fact that this water has been used for irrigation (from a dam near the bottom of the site) and has a connection to the local groundwater, which is routinely used for irrigation. Boron concentrations at SC01 should be required to meet the ANZG irrigation water limit of 0.5 mg/L boron.

RFI 11 Item 9. Ecotoxicity of pit lakes and TSF wetland

38. A memorandum assessing the potential ecotoxicological risks associated with the proposed pit lakes, TSF wetland, Lower Shepherds Wetland and Rise and Shine Creek wetland, and considering risks to aquatic ecosystems, terrestrial fauna, avifauna, livestock and humans arising from predicted future water quality, has been submitted¹². Of these water bodies, the pit lakes and TSF pond are of greatest concern as they will not be routinely flushed by creek or stream water and are predicted to have the poorest water quality. In contrast, the wetlands on the Rise and Shine Creek and Shepherds Creek will have a water quality reflecting that of RS03 and SC01 respectively.
39. The two pit lakes (RAS and SRX) are predicted to have elevated arsenic and uranium concentrations, well above even the most lenient ANZG recommended limits for ecosystem health (80%). SRX is also predicted to have elevated antimony and iron, and RAS elevated aluminium and sulfate, to levels above these limits. Many of the other trace metals and metalloids present in the rocks of this site are also predicted to be significantly elevated, and the risk of significant cumulative effects (from multiple contaminants) cannot be dismissed. There is therefore no doubt that the pit lake water will be of very poor water quality, with the potential to seriously limit the development of a functioning ecosystem as well as any potential human use of this water.

¹² Response to RFI 11 – Fast track approvals application FTA-2507-1089 – Item 9 Ecotoxicology. (Palich, Geocontam Risk Management) J-H-NZ0238-009-L-Rev0

40. The elevation of arsenic, particularly in the RAS pit lake, is a major concern as arsenic can accumulate in lake weeds to the extent that they can become toxic to aquatic and terrestrial wildlife or stock. I note that the arsenic concentrations could be up to 10 times higher than those predicted, given the concentrations anticipated to be present in the RAS underground water (4000 µg/L) that will be the predominant source of water filling the pit lake after mine closure¹³.
41. Of the other contaminants, only mercury and selenium are known to be bioaccumulative in the food chain. Their concentrations are predicted to remain low, below the recommended ANZG guidelines which do take bioaccumulation risk into account. If the predications are proved valid there may be little risk of bioaccumulation. However, validation of the predictions with measured water quality data will be required before the risk can be considered negligible.
42. The effects of stratification on pit lake water quality have still not been assessed¹³. Seasonal stratification of the lake's water column has the potential to significantly alter the chemistry of the surface waters. Until this modelling has been completed, all predictions of lake water quality must be considered indicative only.
43. Coupled with the fact that the pit lakes, particularly the RAS pit lake, will involve a huge volume of toxic water being stored in the catchment, in perpetuity, the ecological and human health risks posed by these features must not be dismissed. To me this remains a critical consideration for the approval of this project.
44. For the TSF wetland, a capping layer of weathered bedrock and topsoil is now proposed to cover the tailings¹⁴. If effectively designed and implemented, this cap would prevent contaminants moving from the tailings pile into the wetland. The water quality in the wetland will then dictated mainly by that of the source water.
45. Unlike the pit lakes, the TSF wetland is intended to support a functioning ecosystem and to provide biodiversity benefits. The runoff that will flow into the wetland is, however, predicted to have elevated aluminium,

¹³ Operational Phase Site Wide Water and Load Balance Model Bendigo-Ophir Gold Project (Mine Waste Management Ltd.) J-NZ0488-015-R-Rev0

¹⁴ Response to RFI 11 – Fast track approvals application FTA-2507-1089 – Item 9 Ecotoxicology. (Palich, Geocontam Risk Management) J-H-NZ0238-009-L-Rev0

molybdenum, antimony and uranium concentrations¹⁵. The levels are predicted to exceed even the most lenient (80%) ANZG guidelines for aquatic life. To a lesser degree arsenic and selenium are predicted to be high also, exceeding 90% ANZG guidelines. Despite the assurances given, it seems most unlikely that a water body of this nature would provide a habitat for a healthy aquatic ecosystem, or for waterfowl and other bird species.

46. Finally, a comparison with NZDWS confirms that the pit lake waters, TSF wetland and any surface water body connected to Shepherds Creek would be unsuitable as a drinking water supply. Predicted arsenic and antimony concentrations in the pit lakes and TSF wetland exceed NZDWS. Predicted uranium concentrations in the TSF wetland also exceed NZDWS, as do predicted fluoride, antimony and uranium concentrations in Shepherds Creek.
47. Despite the enduring very poor water quality being predicted for these legacy water features on the BOGP site, I could not find any reference to ongoing water quality monitoring being proposed.

Professor Jennifer Webster-Brown
7 September 2026

¹⁵ Response to RFI 11 – Fast track approvals application FTA-2507-1089 – Item 9 Ecotoxicology. (Palich, Geocontam Risk Management) J-H-NZ0238-009-L-Rev0