BEFORE THE FAST-TRACK EXPERT PANEL

IN THE MATTER of the Fast-track Approvals Act 2024 ("FTAA")

AND

IN THE MATTER of Bendigo-Ophir Gold Project (FTAA-2507-1089)

JOINT STATEMENT OF EXPERT WITNESSES:

RECONVENED GEOCHEMISTRY / WATER QUALITY / HYDROLOGY / WATER MANAGEMENT / FRESHWATER ECOLOGY

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10 June 2026

INTRODUCTION

1. Expert conferencing on the topic of geochemistry / water quality / hydrology / water management / freshwater ecology took place online via Microsoft Teams from 8.00am-6.00pm on 8 June 2026 and 8.00am-6.00pm on 9 June 2026, following which a Joint Witness Statement ("JWS") was signed. To allow the experts to work through the remaining agenda items, conferencing was reconvened from 8.00am-5.30pm on 10 June 2026.

2. The conference was attended by the following experts:

   (a) Dr Paul Weber ("PW") (Applicant);
   (b) Julie Palich ("JP") (Applicant);
   (c) Ryan Burgess ("RB") (Applicant);
   (d) Gary Smith ("GS") (Applicant);
   (e) Dr Ian Boothroyd ("IB") (Applicant);
   (f) Laura Drummond ("LD") (Applicant) only attended from 8:00am-12:30pm;
   (g) Dr Leanne Morgan ("LM") (Environmental Defence Society);
   (h) Professor Jennifer Webster-Brown ("JW") (Environmental Defence Society);
   (i) Alexandra Badenhop ("AB") (Otago Regional Council);
   (j) Dr Michael Greer ("MG") (Otago Regional Council);
   (k) Kate McArthur ("KM") (Fish and Game); and
   (l) Mark Pizey ("MP") (Kā Rūnaka). MP only attended from 8:00am-8:40am and participated in agenda items P(ii) and (iv).

3. Jason Welsh (ChanceryGreen) acted as independent facilitator.

4. Islay Fowler (ChanceryGreen) and Ebony Ellis (ChanceryGreen) assisted the experts to draft the Joint Witness Statement ("JWS").

5. Matthew Dale (Kā Rūnaka) and Eric Torvelainen (Applicant) who attended conferencing on 8 and 9 June 2026 did not attend reconvened conferencing.

CODE OF CONDUCT

6. The experts confirm that they have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and referred to in the Fast-track Approvals Act 2024: Panel Conveners' Practice and Procedure Guidance 22 July 2025, and agree to comply with it. The experts

confirm that the issues addressed in this JWS are within their area of expertise, unless stated otherwise.

SCOPE OF JWS

7. In Expert Panel Minute 8 (4 May 2026), the Panel directed experts in the topic of geochemistry / water quality / hydrology / water management / freshwater ecology to conference on identified focus areas. The Panel also provided a supporting paper, "Expert conferencing questions – water", which outlines additional topic-specific detail. Annexure 1 of Minute 8, together with that paper, has formed the basis of the conferencing agenda. The agenda item numbering in this JWS follows the numbering used in the Geochemistry / Water Quality / Hydrology / Water Management / Freshwater Ecology JWS dated 8 and 9 June 2026.

8. In this JWS, we report the outcome of our discussions in relation to each item (below), including by reference to points of agreement, disagreement, and unresolved matters or uncertainties. Where we are not agreed in relation to any issue, we have set out the nature and basis of that disagreement.

AGENDA ITEMS

Water Quality / Geochemistry

F. Implications for harvest of game birds from Bendigo Wildlife Management Reserve -potential for bioaccumulation

9. All experts note the water and geochemistry experts can only provide information on the water quality of the various bodies of water that birds could access.

10. All experts consider that risk to birds requires avifauna specialists' input, evaluating effects based on water quality information available. PW has prepared a table that shows where water quality data can be found. This has been prepared under time constraints and based on available information at hand. This is set out in **Appendix A.**

11. KM considers that the information provided by PW provides a good summary of areas of open water that may attract waterbirds and therefore create a risk. However, she notes that all waterbodies within the site footprint may be accessed by birds and thus could also present some risk of bioaccumulation.

12. Relevant bioaccumulation measures were discussed in the JWS by these experts dated 8 and 9 June 2026 at [106](d).

Water Management / Treatment

O. Net percolation assumptions / performance standards: Net percolation assumptions / performance standards adopted. Are these appropriate and sufficiently conservative to assess operation and long term risk?

13. There was insufficient time for the experts to address this question, although the experts note they have considered this in relation to the water load balance model discussed below.

P. Water Treatment

(i) Triggers for commissioning of the water treatment plant: Are they well defined, appropriate?

14. With regard to triggers, PW notes his RFI response dated 4 June 2026 at [85] and his RFI response 17 April 2026 at [13] that with regard to the Water Management Plan:

"*Water Management Plan: The plan should be updated to explain that one option to manage potential adverse effects of the project on water quality is the construction of the Water Treatment Plant. Triggers for this adaptive management process would include:*

(a) *Poor water quality due to run-off from mine infrastructure areas outside of the mine water circuit.*
(b) *The development of surplus mine impacted water in the mine circuit water that cannot be stored in the tailings storage facility (TSF).*
(c) *Mine closure and the requirement to have the WTP commissioned to transition from internal water management processes to treat and release."*

15. GS recommends that item [14](a) above be included in conditions D.02 New8.

16. As per [14](a) above, PW proposes that poor water quality that would trigger the construction of the active water treatment plant as explained in his RFI response evidence dated 17 April 2026 at [14](e)(i)-(iii) are set out below.

(i) "Monitoring data (Paragraph (b) above) that demonstrates exceedance of the ANZG (2018) Guideline Value – High (DGV1-high) from sediment transport from the BOGP.

(ii) Increasing trends in PCOC at performance monitoring locations that suggest water quality limits at the proposed compliance

monitoring locations may be exceeded with time. These limits / trend rates need to be defined as part of the adaptive management process once the project is operational and data are available. This trend analysis is included as proposed consent condition NEW 5 – Document D.04 – Schedule Two – General Conditions for ORC (17 April 2026).

(iii) One option for a trigger value for adaptive management is if any PCOCs are within 50% of the proposed compliance limit at compliance monitoring locations with increasing trends. This approach is similar to using 50% of maximum acceptable value (MAV) for New Zealand drinking water where it is used as a screening level for follow up action (Taumata Arowai, 2022). Such trigger limits should be defined in the G.01 Water Management Plan as part of an adaptive management process."

17. JW and AB agree with the proposed triggers for water treatment plant construction at [16] above, notwithstanding [18] below.

18. MG, JP, AB, JW and KM do not consider that the proposed trigger at [16](i) above is appropriate. They also consider that the direct application of the 50% of DGV may not be an appropriate trigger value for all metals noting that baseline concentrations are currently unknown. Sediment triggers should ultimately be developed from baseline data and should be set at a level where there is a demonstrable degradation from baseline conditions and a clear risk of the ANZG DGV high being exceeded in the absence of intervention.

19. KM considers that while the proposed triggers above provide more detail, the time taken to collect performance data, interpret trends, and begin the lead-in time for active treatment, may result in a period of time of at least two-years, and likely more, before active treatment is fully implemented. While this occurs, effects continue.

20. PW considers that at the start of the project the geochemical risks are likely to be low, increasing with time that enables observance of trends and identification of management procedures.

(ii) Post closure maintenance / operation of the water treatment plant (both active and/or passive): Is this adequately addressed / provisioned for? Duration of active treatment

21. MP, JW and AB consider that post-mine closure, financial provision and mechanisms are needed for the long-term management of the water treatment systems. PW and MP refer to the Geotech JWS dated 12 May 2026 at [22] and endorse the recommendations within that paragraph.

22. PW notes that the NP20 model indicates that active treatment is required for approximately 50 years until passive treatment can be initiated, noting further work needs to be done on the passive treatment system to confirm its treatment efficiencies. More conservative models suggest that the timeframe could be longer.

23. KM cannot comment on the financial aspects but agrees there needs to be an enduring responsibility for treatment to manage the long term effects into the future.

(iii) Passive treatment viability: considering potential water quality and volumes. Is this adequately addressed / provisioned for? Duration of passive treatment

24. PW notes that the Water Treatment Study[1] addresses active and passive treatment options which are based on relevant literature. As noted in that report, further studies are required to confirm the style of passive treatment and the capacity of that passive treatment system to achieve the water quality limits set for the project. These studies are required in a timely manner so that the technology is available for the treatment of mine impact waters as per the Mine Plan.

25. JW, KM, AB and PW recommend that there be a condition to the resource consents requiring studies for the passive treatment system for each catchment to be undertaken, similar to the consent condition for active treatment trials and with regard to the timings specified in [26] below.

26. PW considers the timing of these studies should be:

(a) Shepherd's Creek: studies would be required within 5 years of active treatment starting, and needs to be commenced at least 5 years before passive treatment is required.

[1] B.06C Mine Waste Management Limited - Mine Impacted Water Overview Report - Appendix M: Water Treatment Study - Bendigo- Ophir Gold Project. MWM Report Number: J-NZ0464-002-R-Rev2.

(b) Rise and Shine Creek: studies would need to commence at least 5 years before passive treatment is required. SRX Pit is anticipated to spill within 6 months of dewatering ceasing (which is currently planned to be at year 11 of the Mine Plan).

27. PW, JW, KM and AB note that the passive treatment will potentially be required in perpetuity, which will require ongoing monitoring, management, maintenance. As noted, this requires financial provisions and mechanisms.

28. KM and AB note that this approach highlights the importance of the water quality compliance limits to manage the effects into the future in relation to an as yet uncertain passive treatment regime.

(iv) Sludge Disposal: Is this appropriately addressed?

29. PW explains that sludge disposal was addressed at the contaminated land expert conferencing and reference to that JWS should be undertaken. PW notes the intention for all sludges from active and passive treatment systems to be disposed of offsite.

30. AB notes that onsite sludge disposal is not part of this application and is not being consented as part of this fast-track process. In the future, if onsite disposal is required, this would be subject to separate studies and consents.

31. JP notes the focus has been on whether offsite sludge disposal is viable. JP notes that based on water quality data, offsite disposal should be viable in the future.

32. MP and JP support [19] and [20] of the Contaminated Land JWS including the recommendations for additions to new consent conditions. MP, JP, PW support these conditions for sludge management and disposal which are appropriate to manage future risk, and consider they should be used to update the conditions in D.02 NEW6-NEW11. [Subsequent to MP's departure from the conference, GS and PW noted that conditions D.02 NEW6-NEW11 relate only to the matters in [19] of the Contaminated Land JWS].

33. JW, PW, AB, JP and GS note that should reverse osmosis be required, the brine would also require offsite disposal after closure.

34. GS, JP, PW, MP, JW agree that appropriate assessment and detailed management plan for sludge management cannot be undertaken until after the water treatability studies have been undertaken, as detailed in D.02 NEW6-

NEW11. However, offsite disposal would be retained as the base case for disposal unless these studies identify a viable alternative.

Q. Site Wide transient WLBM: scope, definition, results, uncertainty and how this will feed into detailed design etc.

35. RB notes the scope is to develop a transient Site Wide WLBM that represents the operational period of mining, expanding upon modelling completed as part of the substantive application. Focus areas of the model are long-term site water balance condition, and how water storage areas (e.g. TSF supernatant pond) recover following extreme precipitation events. Surface water quality will also be simulated as part of the model. Model outputs will support water management infrastructure (e.g. sump sizing, TSF water storage requirements). If model results suggest an ongoing water surplus, options for mitigations will be evaluated to support detailed design. RB notes that this modelling is currently underway. The intention is for the model to be an operational tool to be used for water management and planning and updated periodically to incorporate empirical performance monitoring data collected during operations and/or as material changes to the Mine Plan occur. AB, JW and KM support the need for this modelling and its ongoing updating.

36. RB notes the intention for this model is to initially adopt currently available water quality source terms. These will be updated once performance monitoring data are available to confirm that they remain appropriate with reference to water quality forecasts.

37. JW, AB, LM and KM consider there is a need for sensitivity and uncertainty analysis in the modelling. For example, taking into account: climatic variability, worst-case scenarios (e.g. high net percolation, poorer water quality, high flows, high dewatering estimates etc.).

38. LM notes that the WLBM inputs (reported in B.06c Appendix N) do not apply the recommended 2X safety factor for pit dewatering water volumes (which was recommended in the B.05 groundwater modelling report). LM considers this not to be a conservative approach.

39. RB notes regarding the above [37] and [38] that this will be accommodated in the proposed modelling.

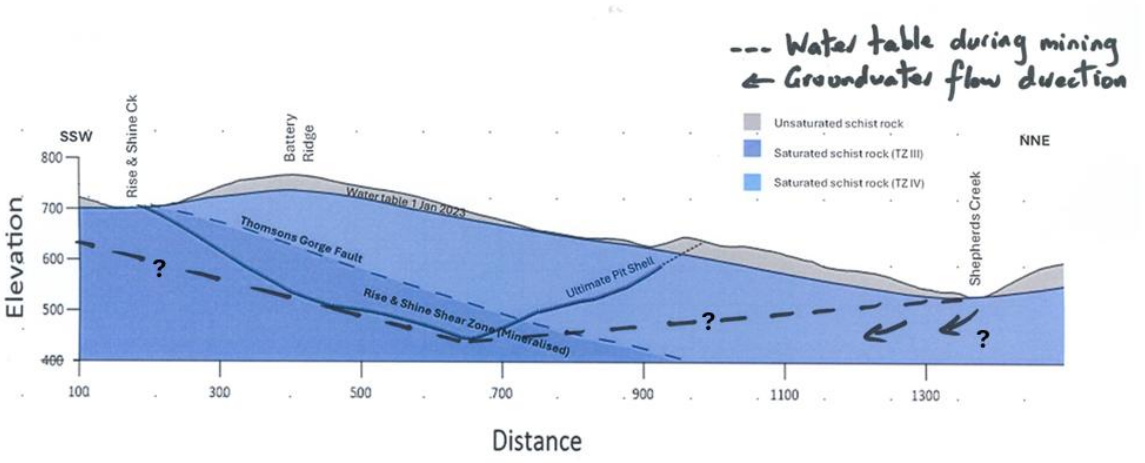
40. JW, AB, KM, PW and LM recommend that the measures above be incorporated into condition D.04 NEW6A pg 10. AB considers that rather than making the

model available on request, reporting on the model should be included in the conditioned annual reports under the Water Management Plan.

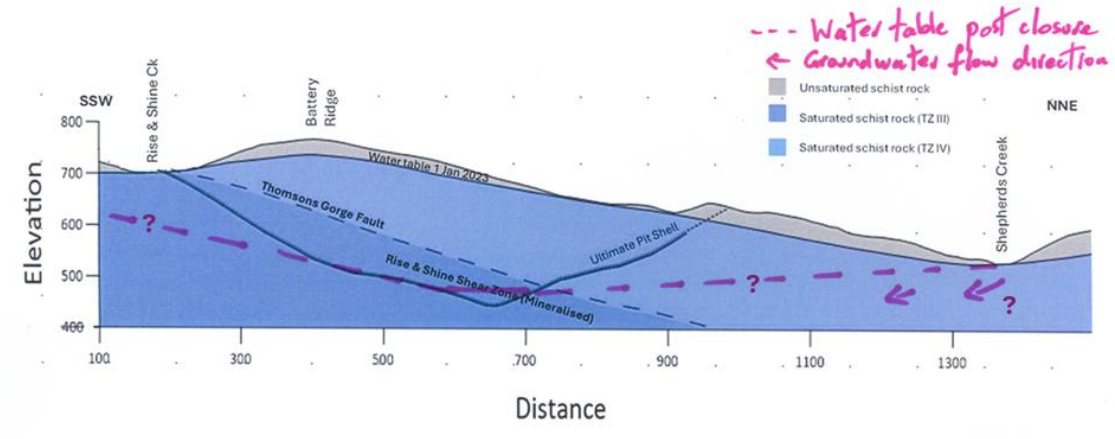
S. Uncaptured seepage: Is this appropriately considered / addressed in the WLBM and ultimately groundwater assessments

41. LM, JW, AB, and KM note that uncaptured seepage is not considered or addressed in the water load balance model (WLBM).

42. LM and KM consider understanding the volume of uncaptured and untreated seepage is important given the large volumes and footprint (more than 200ha) of mine waste storage facilities (MWSF). LM notes that Burgess RFI 5 response - April 17 detailed a Mine Waste Storage Facility Seepage Assessment. LM considers that the assessment uses many unvalidated assumptions due to a lack of data. Some of LMs concerns were detailed in the Groundwater JWS 35-42. Importantly, the assessment assumes pre-mining groundwater flow conditions. However, during mining and post closure, groundwater flow will change significantly compared to pre mining and especially in the vicinity of Shepherds Creek where the majority of the MWSFs are located, as shown in cross-sections below prepared by LM which indicate possible water tables.



Cross-section looking down valley (during mining) showing possible water table location and groundwater flow direction near Shepherds Creek (adapted from report B.03 Figure 10 KSL).
Note that the influence of the Come in Time pit and Rise and Shine tunnels are not accounted for but would likely increase drawdown and groundwater flow away from Shepherds Creek.



Cross section looking down valley (post closure) showing possible water table location and groundwater flow direction near Shepherds Creek (adapted from report B.03 Figure 10 KSL).
Note that the Rise and Shine pit lake water level is 490 m ASL. Influence of the Come in Time pit and Rise and Shine tunnels are not accounted for but would likely increase drawdown and groundwater flow away from Shepherds Creek.

43. LM considers groundwater flow during and post mining a critical knowledge gap. The groundwater modelling in **B.05** is of low confidence (according to the criteria of the Australian Groundwater modelling guidelines) and not adequate to verify the applicant's assumption of hydrodynamic containment.

44. LM and KM consider that there is not enough information to say uncaptured and untreated seepage will be minor. LM and KM consider uncaptured and untreated seepage to be an intergenerational risk to aquifers and connected water bodies.

45. RB considers, as described in the Joint Response to Panel RFI 4 Geology, Geotech, Engineering dated 3 June 2026[2], the constrained nature of the valleys and storage of mine waste within those valleys would allow for high levels of seepage collection. If primary seepage collection systems do not perform adequately, multiple locations exist to intercept unrecovered seepage with contingency seepage interception systems.

46. RB notes that the situation described in paragraphs [41] – [43] are addressed in the Joint Response to Panel RFI 4 Geology, Geotech, Engineering dated 3 June 2026. RB considers given the hydrogeological setting and low hydraulic conductivity of the schist rock that the situation described in paragraphs [41] – [43] is unlikely. Nonetheless, in the event that dewatering influences seepage collection systems, the RAS Pit and underground mine will act as local groundwater sinks effectively intercepting seepage that migrates past primary

[2] Matakanui-Gold-Limited-Response-to-RFI-4-Geology,-Geotech-and-Engineering_Redacted.pdf

seepage collection systems. RB considers that seepage collection risks can be appropriately managed onsite.

47. RB and AB consider that given the modelling results from the Burgess RFI 5 response - April 17 where blockage of the Shepherd's ELF drain led to increased unrecovered seepage, they recommend financial provision and mechanisms are made for the design, installation, and operation of secondary seepage interception systems post-closure.

48. LM notes that she was not aware of the information in the Joint Response to Panel RFI 4 Geology, Geotech, Engineering dated 3 June 2026, and within the constraints of this conference has not had sufficient time to consider its contents.

49. AB, RB, and LM all agreed on the need for further characterisation to support further peer-reviewed modelling (with defined objectives) to confirm final groundwater flow directions and seepage containment during operation and postclosure scenarios within the Groundwater JWS at [28]. AB and RB agreed in [31] of that JWS that the modelling would need to be completed before commissioning and any other studies, management plans, monitoring, and conditions that rely on groundwater outputs would need to be updated in response to any materially different results or hydrogeological conditions.

50. KM notes uncaptured seepage is not considered or addressed by the calculations of PW and Dr Ryder (in the response to comments) and is therefore not captured within their conclusions on the potential effects of contamination on the Lindis and Clutha Rivers.

T. Dust suppression water source and volumes required throughout project. Is the source of dust suppression appropriate and are stated volumes sufficient for dust supression requirements?

51. There was insufficient time during conferencing for the experts to address this question.

V. Adaptive Management Approach: Is this sufficiently outlined, provisioned for? Longevity and duration of active management.

52. AB, LM and RB have made comment regarding adaptive management in [98] to [106] of the Groundwater JWS dated 14 & 15 May. JW endorses those comments. KM agrees with paragraphs [102] – [106].

53. PW notes that adaptive management is based on performance monitoring against defined trigger values for the implementation of timely management processes to manage the variance from the expected case. Performance monitoring locations have been discussed previously. Surface water performance monitoring is located at areas of higher risk e.g. pit sumps or directs points of seepage. This, together with compliance monitoring, provides the monitoring data to understand the necessity to implement adaptive management processes. Some triggers or higher risk events have already been discussed at [14] above. Higher risk events have been identified in the Water and ELF Management Plans and preliminary controls have been identified.

54. PW recommends these risks should be reviewed and the risk register maintained so that it is a live document. The current risks identified in table 9 of the Water Management Plan have controls but the trigger for adaptive management processes needs definition once the operational closure objectives have been defined. AB, JW, MG support these recommendations.

55. RB notes that MGL have committed to the development and funding of a peer review panel to provide independent review and advice on matters of geochemistry and mine impacted waters, hydrogeology, and rehabilitation (see paragraph 15 of Joint Response to Panel Request for Information 4 – Geology, Geotech, Engineering, dated 3 June 2026). AB and JW support the development of an independent peer review panel.

56. KM considers the proposed adaptive management framework does not adequately respond to the degree of uncertainty, potential scale of effect and longevity of those effects. There is insufficient detail in the management plans to provide details of responses to, and mitigation of, the full envelope of potential effects, or those that may arise in future. The described adaptations are not always agile and there are protracted lags between an effect occurring, the detection of that effect, and the time required to implement processes that have been identified in the application. KM is still of the view that the issues with adaptive management outlined in her statement dated April 2026, paragraphs 186 - 195 remain largely unresolved.

W. Water supply for wetland: Construction of a biodiversity wetland on the TSF is proposed as a major part of the ecological mitigation package. To sustain wetland vegetation and provide wetland habitat for wildlife the wetland requires a fresh water supply for most of the

year (10 months plus) and wet soils all year. Are the following appropriately addressed:

(iii) What are the contingencies for natural on-going supply?

57. There was insufficient time during conferencing for the experts to address this question.

(iv) Expected chemical composition of the water in a wetland positioned on top of tailings: What is the expected chemical composition (including pH) of the water in a wetland positioned on top of tailings? Is there risk of contaminant leakage into the wetland sufficient to cause plant mortality?

58. There was insufficient time during conferencing for the experts to address this question, however, PW notes that water quality has been provided as Appendix A based on background water quality. JP notes this does not specifically consider the ecological risks for poorer water quality derived from the underlying tailings.

(v) Expected chemical composition of pit lake water quality

59. There was insufficient time during conferencing for the experts to address this question.

Compliance

X. Proposed surface water and groundwater compliance locations: Appropriateness of proposed surface water and groundwater compliance locations in terms of:

(i) Capturing effects of potential offsite discharges

Surface water

60. PW notes that specific compliance water monitoring locations for surface water are detailed in Table 2 of the Water Management Plan. This includes SC01, RS03, and CC01 (control site). In addition, there is a treated wastewater discharge point (which is not covered by the application as existing consents are already in place). JW, RB, LD, AB, KM, JP and MG agree that the proposed sites are appropriate for measuring potential impacts from the mine site on Rise and Shine Creek/Clearwater Creek and Shepherd's Creek.

61. MG and KM do not consider the surface water compliance sites capture effects of mine water discharges on receiving water bodies outside the mine site as they are not located there.

62. MG and JP do not consider compliance monitoring is appropriate in the Lindis River and Bendigo Creek. It would not be possible to attribute any limit exceedance to the mine with a high degree of certainty.

63. MG, JW, and JP consider monitoring in the Lindis River and Bendigo Creek best sits outside the compliance monitoring programme as per proposed condition D.04 NEW6.

64. KM notes that monitoring (irrespective of whether it is compliance or performance) is needed in the Lindis and other downstream receptors (e.g. Bendigo Creek), and monitoring of the groundwater linkages between these receptors and the transport pathways for contaminants leaving the mine site are needed.

Groundwater

65. RB notes the proposed compliance groundwater monitoring locations include MW-101 (located adjacent to Shepherd's Creek upgradient of the Ardgour Aquifer), and Base Bore (located in the Bendigo Aquifer). These locations are detailed in Table 5 of the Water Management Plan. These locations are positioned along potential groundwater transport pathways between potential contamination sources (e.g. ELFs and the TSF) and groundwater receptors.

66. RB acknowledges that initial drilling of MW-101 has found considerably different hydrogeological conditions than anticipated and it is therefore unclear whether MW-101 is an appropriate compliance monitoring location. RB, LM and AB consider that further characterisation work is required to determine appropriate groundwater compliance monitoring locations.

67. LM and AB consider that lack of data and information on groundwater flow paths at the site makes commenting on proposed groundwater compliance monitoring difficult currently.

68. LM and AB consider that given the uncertainty in hydrogeological conditions indicated by the drilling in MW-101, further investigations are required in both within the Shepherds Valley Alluvium and Ardgour Aquifer and the Bendigo

alluvium upgradient of the Bendigo Aquifer which may identify the need for additional compliance locations.

69. LM recommends additional compliance monitoring (including but not limited to):

(a) in the Bendigo Creek alluvium immediately upgradient of where it enters the Bendigo Aquifer;

(b) in the Ardgour Aquifer to capture adverse effects from contaminants entering groundwater via Shepherds Creek and pathways other than Shepherds Creek.

70. KM supports the need for the groundwater monitoring proposed by LM so that potential contaminant pathways to surface water receptors can be better understood and monitored. However, KM defers to the groundwater experts with respects to the specifics of monitoring.

71. RB considers that the proposed performance surface and groundwater monitoring (including additions proposed in the groundwater JWS dated 14 and 15 May 2026) appropriately covers potential effect pathways described in [69] above.

(ii) Addressing effects to offsite receptors

72. KM, JW, PW, RB, LM, AB, IB, and MG consider the surface water and ground water compliance monitoring site locations to be adequate (or not) based on their respective comments above. They note that the question is unclear and have prioritised answering other questions in this conference. In addition to the answer above, they direct the panel to the ecological effects discussion below.

Y. Monitoring schedule: Is the monitoring schedule sufficient to capture effects including site water management practices, hydrological variation, seasons etc.

73. Notwithstanding any change proposed in this JWS, the JWS from the 8 and 9 June 2026, and the groundwater JWS dated 14 and 15 May 2026 that require consideration:

Surface water

74. PW notes that the monitoring schedule is contained within the Water Management Plan: Table 2 for compliance monitoring and Table 7 for performance monitoring. These tables identify monthly water quality monitoring together with continuous EC and Flow where appropriate.

75. PW notes the intent of continuous monitoring, as identified in the Water Management Plan, is to develop relationships between EC and key solutes to understand water quality trends and loads outside of monthly grab samples.

76. PW notes that CC01 was established to measure long term climatic variations and its effects on mine water quality.

77. MG, PW, JW, KM and JP consider monthly surface sampling, paired with continuous monitoring as noted above, is appropriate, noting additional monitoring will be needed in response to issues identified through routine compliance or performance monitoring. JW and KM note the need to monitor both dissolved and total metals.

Groundwater

78. The monitoring schedule is contained within the Water Management Plan: Table 5 for compliance monitoring and Table 8 for performance monitoring.

79. RB and AB note that a similar logic described in paragraph [75] should be applied to groundwater monitoring as per the groundwater JWS dated 14 and 15 May 2026.

80. AB and RB consider monthly groundwater compliance sampling, paired with continuous monitoring as noted above, is appropriate. Monthly grab samples should also be taken at performance monitoring locations to determine baseline conditions. This frequency of grab samples at performance monitoring locations may be reduced to quarterly, if appropriate, based on the data. AB and RB note that additional performance monitoring may be required in response to issues identified through routine compliance or performance monitoring.

Z. Discharge water quality standards / Compliance limits for water quality: Appropriateness of proposed compliance water quality - both actual limits, contaminants of concern, resultant mass loading (chronic versus acute) with a particular focus on:

(v) Dissolved versus soluble limits

81. JW notes that "dissolved" is specified for metals and metalloids (other than antimony) in the proposed compliance limits for surface water. The ANZG guidelines, which form the basis for setting these limits for most of these contaminants, do not specify or recommend that "dissolved" contaminant concentration be used as the DGV, as this refers to only a portion of the metal/metalloid being carried in the water. Instead, concentration should be measured on an unfiltered water sample, so that total (or acid soluble) concentration can be determined. This will then represent all metal /metalloid being transported off the mine site

82. JW noted that ANZG and ANZECC recommend that the total (or acid soluble) metal/metalloid concentration be compared to DGVs (here proposed as compliance limits) in the first instance, then dissolved concentrations be compared to compliance limits thereafter, to assess likely direct toxicity to biota if the DCVs are exceeded by total concentrations.

83. MG and JP do not agree. In their view, failing to specify whether a metal limit applies to dissolved or total metals serves no practical purpose and instead creates unnecessary ambiguity. MG notes that he cannot recall ever encountering a resource consent that does not expressly specify the form of metal to which limits apply, and that guidance published on the Quality Planning website identifies specification of the metal form in consent conditions as good drafting practice. MG further notes that the hierarchy of chemical measurements ANZG (2018) requires dissolved metal concentrations to be assessed against the default guideline values if they are exceeded by total concentrations (DGVs). Accordingly, he considers there to be no disadvantage in expressly stating that the compliance standards apply to dissolved metals, even if the DGVs published on the ANZG web portal do not explicitly do so.

84. MG further notes, expressly specifying dissolved metals is also consistent with standard practice for discharge permits of this nature, as evidenced by the resource consents granted for the three previously approved Fast-track projects that include metal limits/triggers (Homestead Bay, Green Steel and Waihi North), all of which specify that those limits/triggers apply to dissolved metals. MG further notes that this approach is recognised in ANZG itself which states that "*In the case of metals, the first option is to test the total (particulate plus dissolved) metals concentration against the guideline value. More commonly, since it is generally the dissolved fraction that is bioavailable rather than any particulate*

forms, the fraction that passes through a 0.45 µm filter membrane is compared to the guideline value".

85. RB, JP, AB and JW consider total fraction is not appropriate for comparison for groundwater samples due to possible error from in-well sediments not representative of aquifer water quality. As such, they recommend the dissolved fraction is specified for groundwater samples except where total concentrations form the basis of the compliance criteria (e.g. Fe).

86. JP notes both total and dissolved fractions have been monitored in surface water during baseline and should continue during operations for key PCOCs. MG, KM, AB and JW endorse this approach for surface water monitoring.

(vi) Groundwater versus surface water limits

87. In the absence of groundwater baseline data, AB and JW consider the more stringent of the groundwater or surface water quality limits should apply to surface water at SC01 due to the assumed interconnectedness of groundwater. KM agrees with this and thinks it should also apply to RS03 (with the exception of arsenic).

88. JP, MG and JW note that baseline water quality at RS03 does not meet the groundwater compliance limit for arsenic.

(vii) Receiving environment values

89. There was insufficient time in conferencing for the experts to address this question.

AA. Appropriateness of proposed performance monitoring, adequacy of triggers and actions as outlined in Water Management Plan to address these.

90. PW notes that the Water Management Plan has both performance and compliance monitoring to understand water quality trends to ensure compliance. The specific water monitoring locations are detailed in Table 7 of the Water Management Plan and include ELF seepage, pit sumps, the arsenic rich topsoil stockpile and silt pond discharges. As per [31] of the JWS dated 8 and 9 June 2026, the TSF seepage needs to be included.

91. PW notes proposed condition D.04 NEW6 pg 8[3] requires water monitoring at Lindis River at Ardgour Road, and Bendigo Creek.

BB. Appropriateness for stock water, irrigation, water quality standards: Appropriateness of proposed compliance limits with regards to the relevant stock water, irrigation, water quality standards.

92. The experts note this was covered in other sections of this JWS and in the JWS dated 8/9 June 2026.

CC. Monitoring data collection and availability: Appropriateness of availability, transparency, independence.

93. There was insufficient time in conferencing for the experts to address this question.

DD. Bioaccumulation in the receiving environment. Is this addressed in the proposed compliance standards?

94. The experts note this was covered in other sections of this JWS and in the JWS dated 8/9 June 2026.

EE. Effects of mass discharge to the receiving environment: Are the effects addressed and well understood? Consideration of effects on aquatic life, consumption by farm animals, etc. (RMA s107).

95. The experts consider the scope of this question to pertain to ecological effects and effects on farm animals. As set out at [27] of their JWS dated 8 and 9 June 2026:

> *Regardless of whether the data are suitable or not, MG, KM, MD, LD and IB note that there is no ecological effects assessment that considers current and predicted water quality for either the mine site or beyond the mine site.*

96. Additionally, MG, IB, LB, and KM note that there has been no technical assessment of the potential for significant adverse effects on aquatic life (s107(1)(g)). KM does not consider effects are understood in the wider receiving

[3] https://www.fasttrack.govt.nz/__data/assets/pdf_file/0019/24247/Part-4-04-D.04-Schedule-Two-General-Conditions-for-Otago-Regional-Council-Consents-17-April-2026.pdf

environment. Accordingly, IB, LD and MG consider that ecological monitoring will need to occur to identify and address any unanticipated effects.

97. KM, LD, and IB consider standard annual macroinvertebrate and monthly (visual assessment) periphyton ecological monitoring should be added to the proposed surface quality monitoring in the Lindis River and Bendigo Creek receiving environment. KM, LD, and IB refer to condition NEW 6 in D.04 and the 5-yearly bioaccumulation monitoring recommendations at [106(d)] of the JWS dated 8 and 9 June 2026.

98. AB, KM, JW and MG note that a technical assessment of the potential for the activity to render fresh water unsuitable for consumption by farm animals has not been undertaken (s107(1)(f)). They note that the proposed consent conditions are mostly more stringent than those documented within current ANZECC (2000) guidelines for stock water quality, however draft ANZG guidance[4] does contain different values for some livestock that indicate that water quality could have adverse effects on poultry (e.g. For poultry, magnesium concentrations in drinking water should be <125 mg/L; higher concentrations may have a laxative effect. Also, if sulfate levels are high, poultry performance may be affected at magnesium concentrations >50 mg/L.; sulfate <250 mg/L). They note that proposed arsenic compliance limits to be applied in Rise & Shine catchment (0.042 mg/L) due to higher baseline water quality arsenic concentrations, are also higher than stock water quality guidelines (0.025 mg/L).

SIGNATURES OF EXPERTS

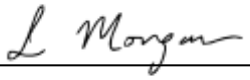
Dr Paul Weber

Julie Palich

[4] Primary industries – livestock drinking water guidelines (draft)

Ryan Burgess

Gary Smith



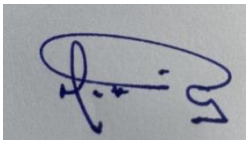
Dr Leanne Morgan

Professor Jennifer Webster-Brown

Alexandra Badenhop

Dr Michael Greer

Kate McArthur



Mark Pizey

Dr Ian Boothroyd

Laura Drummond

APPENDIX A

Mine domain	Location	Size (ha) (to provide perspective for considering vectors)	Mine Phase	Duration of water body	Comments	Water Quality Notes	Data Source
TSF	TSF Decant Pond		Operational Phase	~10 years	Eventually capped with brown rock at closure	TSF Seepage water (to consider recycle) + higher Fe and As to consider risk identified at Macraes for possible oxidation in the decant pond	B.06C Mine Waste Management Limited - Mine Impacted Water Overview Report - Appendix I: Source Term Definition Report Bendigo-Ophir Gold Project. MWM Report Number: J-NZ045-001-R-Rev2: Table 23. Consider As = 8.6 mg/L (Table 21)
TSF Wetland	Constructed on top of the Shepherds TSF at closure		Post Closure	Post Closure – in Perpetuity	Separated by brown rock cap. No modelling undertaken of this rehabilitation component of the closure plan.	Assume to be water quality comparable to baseline waste quality for Shepherds Creek	B.06C Mine Waste Management Limited - Mine Impacted Water Overview Report - Appendix I: Source Term Definition Report Bendigo-Ophir Gold Project. MWM Report Number: J-NZ045-001-R-Rev2: Table 3 for SC01
Shepherds Seepage Collection Sump	Shepherds		Operational and Closure	Operational Phase and includes TSF and Shepherds ELF seepage	At closure it may be better to separate the two streams and treat separately (i.e., TSF for cyanide etc)	TSF water quality constant source term	**TSF:** B.06C Mine Waste Management Limited - Mine Impacted Water Overview Report - Appendix I: Source Term Definition Report Bendigo-Ophir Gold Project. MWM Report Number: J-NZ045-001-R-Rev2: Table 23. **Shepherds ELF TSF**. Dynamic source terms for 10 m ELF model – which varies with time. See: B.06C Mine Waste Management Limited - Mine Impacted Water Overview Report - Appendix L: Engineered Landform Water Quality Forecast Model Report. MWM Report Number: J-NZ0457-002-R-Rev1: Figure 31 and 32
Pit Sumps	Generic for all pit sumps		Operational Phase		Propose that this is excluded from any assessment due to small dimensions in an operating pit environment. Birds unlikely to hang out here?	Pit wall runoff to operational sumps could be used if required.	NA
Pit Lake	RAS Pit Lake		Closure Phase	Post Closure – in Perpetuity	Two scenario's available including a NP20 model and a conservative model		B.06C Mine Waste Management Limited - Mine Impacted Water Overview Report - Appendix N: Water and Load Balance Model Report – Bendigo-Ophir Gold Project. MWM Report Number: JNZ0233- 016-R-Rev1: Figure 37 and Figure 38.
	SRX Pit Lake		Closure Phase	Post Closure – in Perpetuity	Two scenario's available including a NP20 model and a conservative model		B.06C Mine Waste Management Limited - Mine Impacted Water Overview Report - Appendix N: Water and Load Balance Model Report – Bendigo-Ophir Gold Project. MWM Report Number: JNZ0233- 016-R-Rev1: Figure 35 and 36
General Sediment Ponds	Around the site		Operational Phase	Operational Phase	Elevated TSS. Low risk		B.06C Mine Waste Management Limited - Mine Impacted Water Overview Report - Appendix N: Water and Load Balance Model Report – Bendigo-Ophir Gold Project. MWM Report Number: JNZ0233- 016-R-Rev1: Table 12 - TZ4 / RSSZ Mine Impacted Surfaces
Passive Treatment Ponds	Located upstream of SC01 and in SRX Pit / discharge location		Closure Phase	Post Closure – in Perpetuity			Influent water quality (untreated) would need to be derived from underground seepage, ELF seepage, and TSF seepage