

**Before the Expert Panel appointed  
under the Fast-track Approvals Act 2024**

**Under** the Fast-track Approvals Act 2024  
**(Act)**

**And**

**In the Matter of** an application for approvals by  
Matakanui Gold Limited to establish,  
operate, rehabilitate and ultimately  
close an open pit and underground  
gold mining operation known as the  
Bendigo-Ophir Gold Project

**Statement of Evidence of  
Gary Philip Smith on behalf of  
Matakanui Gold Limited in response to  
Section 53 Feedback  
Water**

Dated: 17 April 2026

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## INTRODUCTION

1. My name is Gary Philip Smith.
2. I am the Engineering Manager and founder of Process Flow Limited a company delivering design/build solutions of Water Treatment infrastructure since 2009.
3. I hold an NZCE (New Zealand Certificate in Engineering)
4. I have over 17 years' experience in engineering management and project delivery associated water treatment plant projects. I have directly managed the design, construction and commissioning 20+ water treatment plants in the municipal and industrial sectors, both in New Zealand and Australia.
5. This statement is given as part of Matakani Gold Limited's (**MGL**) response to comments on the Bendigo-Ophir Gold Project (**BOGP**) made under Section 53 of the FTA. This statement responds to specific comments raised by:
  - (a) Otago Regional Council (**ORC**);
  - (b) Otago and New Zealand Fish and Game Councils;
  - (c) Sustainable Tarras; and
  - (d) Environmental Defence Society (**EDS**).
6. Process Flow Limited's original findings are provided in full in:
  - (a) B.41 - Process Flow - BOGP Post Closure Active Water Treatment Plant Order of Magnitude Study (Process Flow 2025).
7. The report referenced in paragraph 6 above should be read in conjunction with:
  - (a) B.06 Mine Waste Management Limited - Mine Impacted Water Overview Report (MWM 2025).
8. I have prepared this statement in the limited time available for MGL to respond to comments under the Act. If the Panel requires elaboration on any of the matters raised in this statement, I am available to provide further information on request.
9. Although this is not an Environment Court proceeding my confirmation of compliance with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023 is included in Substantive Application Document A0.2B.

## SPECIFIC RESPONSE TO COMMENTS

10. My specific responses are as follows.
11. ORC raised a new recommended Condition 10 for the Section 15 Permits on testing and reporting. I agree with the proposed condition 10, this is common practice and online monitoring will be required as part of the WTP control system. This is a placeholder condition and only topics are proposed.<sup>1</sup> My comments on the new condition are as follows:
- (a) Online (Realtime) monitoring of pH, Turbidity and EC of treated water should be included the WTP instrumentation. These should be calibrated daily by WTP operations staff; and
  - (b) Weekly water quality analysis of total and dissolved metals by an IANZ accredited laboratory of all WQ compliance parameters should be carried out at the discharge point to the WTP treated water pond.
12. Similarly, ORC suggests a new Condition 11 on maintenance requirements for the plant.<sup>2</sup> I agree with ORC's proposed condition. My comment is as follows:
- (a) An Operations and Maintenance manual should be developed for the WTP this should include:
    - (i) Alarms response procedures.
    - (ii) Maintenance Schedules.
    - (iii) Sampling Requirements.
    - (iv) Calibration.
    - (v) Performance testing requirements.
    - (vi) Manufacturers data and manuals.
    - (vii) MSDS information.
    - (viii) HSNO Requirements.
13. The following commenters raise the uncertainty of the performance of the active water treatment system(s) proposed for the Project:

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<sup>1</sup> Part 3-1 - ORC Appendix 02 – ORC recommended conditions – changes to D.02. “New 10”.

<sup>2</sup> Part 3-1 - ORC Appendix 02 – ORC recommended conditions – changes to D.02. “New 11”.

- (a) Otago and New Zealand Fish and Game Councils, Summary comments 5, 37, 54, 55d; and
- (b) Environmental Defence Society, Legal Submissions, summary of adverse effects 10.j and 10.o.
14. As discussed in our report referenced in paragraph 6, we have a thorough understanding of the performance requirements of the WTP, and are confident that testing and optimisation of the process options available will result in the successful design, installation and commissioning of the active Water Treatment Plant. The ability to test the on-site mine influenced water, or a laboratory formed mimic water, similar to the BOGP proposed water quality and then simulate each of these precipitation steps, will give real data to present and reference for final water quality.
15. This would also give certainty about the effectiveness of the treatment process on the BOGP proposed mine water quality and assurance that the water treatment system will achieve the anticipated and required water quality. During the detailed design phase, bench scale and pilot scale testing will be performed. This has been programmed into the WTP construction timeframe. Refer to the gantt chart below.<sup>3</sup>

Construction of the BOGP Active Water Treatment Plant	Month																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Milestone - Representative Water Available for Testing	■																				
Water Quality and Dewatering Testwork		■	■	■	■	■	■	■	■	■	■										
Front End Engineering and Design				■	■	■	■	■	■	■	■										
Pilot Scale Testing and Optimisation						■	■	■	■	■	■										
ORC Detailed Design Review										■	■	■	■	■	■	■	■	■	■	■	■
Milestone - WTP Ready for Construction												■									
WTP Construction and Commissioning												■	■	■	■	■	■	■	■	■	■
Milestone WTP Operational																					■

16. The processes likely to be tested in the bench scale trials include but are not limited to:
- (a) Chemical Treatment and Mineral Precipitation; and
- (b) Membrane treatment including Reverse Osmosis.
17. There are numerous working Testing examples of these processes as discussed in the order of magnitude report. Targeted parameters for testing include:
- (a) Precipitation of metals;
- (b) Sulphate removal;
- (c) pH trimming;
- (d) Sludge thickening, dewatering and disposal; and

<sup>3</sup> See Paul Weber Statement of evidence in response to Section 53 comments.

(e) Nitrogen reduction.

18. Water quality test work, sludge dewatering, sludge handling and disposal are all normal activities in designing process plants for water treatment in New Zealand and several organisations involved in mine water treatment have the resources and knowledge to carry out the work.



**Gary Philip Smith**

**17 April 2026**