BEFORE THE EXPERT PANEL

Under	Fast-Track Approvals Act 2024
In the Matter	of an application under section 42 of the Fast-Track Approvals Act for the Bendigo-Ophir Gold Project
By	**Matakanui Gold Limited** **Applicant**
And	**Trevathan Family** **Party invited to comment**

SUBMISSIONS OF COUNSEL ON BEHALF OF THE TREVATHAN FAMILY

DATED 28 APRIL 2026

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May it please the Expert Panel:

1. The Trevathan Family own approximately 150 Hectares on either side of Dry Creek and adjacent to Ardgour Road. The land has been identified as being adjacent land for the purpose of this application. It is roughly located on Figure 1 from the Shepherds Tailings Storage Facility Technical Report in Appendix 1 to these submissions.[1] Appendix one also includes examples of the Maps of inundation depth and hazard category from the same report.
2. The Trevathan Family owns another approximately 130Ha block on the true right bank of the Lindis River at its confluence with the Clutha River / Mata Au.
3. As set out in its submission the Trevathan Family oppose the application for the Bendigo- Ophir Gold Mine. Their concerns relate solely to the potential adverse effects that could arise from the Tailings Storage Facility. In particular,
    a. the risk of damage in the event that the Tailings Storage Facility were to fail, and
    b. the TSF leeches contaminants that affect ground water and ultimately their farming operations.
4. The Trevathan Family does not have resources available to it to directly engage expert support regarding the technical engineering evidence relevant to the TSF. It therefore needs to draw on the evidence that has been filed by the various parties in this process and its knowledge and understanding of the area.
5. These submissions highlight the key questions that the Trevathan's have and that it considers need to be carefully evaluated and determined by the Expert Panel.

[1] https://www.fasttrack.govt.nz/__data/assets/pdf_file/0021/15582/B.21-Engineering-Geology-Limited-Shepherds-Tailings-Storage-Facility-Technical-Report-EGL-2025b_Redacted.pdf

The Core Issue: Inadequate assessment of identified risks.

6. The Trevathan family's submission is not an objection to mining per se. It is an objection to the creation and externalisation of catastrophic and irreversible risk to downstream landowners without:

    a. a genuine alternatives assessment,

    b. complete geotechnical and hydrogeological evidence, or

    c. enforceable governance mechanisms that ensure risks are not transferred to private landholders and future regulators.

7. These concerns align squarely with the Parliamentary Commissioner for the Environment's submission, which emphasises that tailings facilities represent long-lived, intergenerational hazards that demand a precautionary, system-level approach rather than reliance on adaptive management or downstream mitigation.

3. The Applicant proposes a conventional wet slurry tailings storage facility (TSF) without a documented assessment of lower-risk alternatives such as filtered or dry-stacked tailings. This is a risk-creation decision, not a mere design choice[2].

4. Independent scientific literature[3] confirms that:

    a. TSF failures are increasing in severity and consequence. By way of context the proposed TSF at the Bendigo-Ophir Mine will store an estimated 18million cubic metres of material. The Corrego do Feijao Dam Failure in 2019 released

[2] Evidence of Bernd Lottermoser for Sustainable Tarras at Page 9
[3] *Tailings storage facilities, failures and disaster risk* Nature Reviews Earth and Environment, Volume 5, September 2024 612-630. Attached with these submissions

approximately 11.7 Million M^3 of material and resulted in 272 deaths.

b. failures often occur through a combination of mechanisms previously assessed as “unlikely”; and

c. downstream exposure, not just probability, must drive governance and consent decisions. In this case there are people, nationally significant infrastructure and the Clutha River/Mata Au, a nationally important waterbody with significant social, cultural and economic values.

8. It is submitted that this combination of features directly contradicts any suggestion that a wet slurry TSF can be treated as a low-risk or routine infrastructure choice in this case.

Internal Inconsistency in the Applicant’s Risk Narrative

9. The Applicant’s geotechnical evidence asserts that there is “no credible long-term failure mode”, while simultaneously modelling breach scenarios that inundate the Trevathan property and place dwellings within predicted impact zones.

10. The PCE correctly observes that if a failure scenario is sufficiently credible to justify breach modelling and consequence mapping, it cannot be dismissed as “non-credible” for decision-making purposes. The evidence Professor Lottermoser also identifies that there are documented failure histories in facilities that were assessed as having ‘no credible failure mode’. Examples include Mt Polley, Canada (2014), Cadia, Australia (2018), Brumadinho, Brazil 2019, and Jagersfontein, South Africa in 2022. In these cases the post-failure investigations reveal failure mechanisms that were not assessed as credible, were unidentified during the design process, or a failure to adhere to required engineering practices.

11. The presence of the ELF to ‘butress’ the tailings dam is relied on extensively to support the conclusions regarding the credibility of failure. However, the Geosolve peer-review notes that the buttress has not been relied upon in the stability calculations. It is submitted that significant caution should be exercised in relying on the efficacy of the ELF given that it hasn’t been formally assessed. This is further exacerbated by the lack of assessment of the potential effects of upstream land instability and mining induced seismicity as discussed by Prof Lottermoser. In short, there are multiple layers of assumption inherent in the ‘no credible failure mode’ refrain. As it is often said ‘assumption is the mother of all stuff ups’.

12. International tailings governance standards recognise that catastrophic consequences require heightened precaution regardless of estimated probability, particularly where loss of life and irreversible environmental harm are foreseeable. People live downstream of the proposed TSF. Loss of life is foreseeable if the worst was to happen.

Deferral of the assessment of critical geotechnical and hydrogeological uncertainties

13. Key hazards including landslide risk, long-term seepage behaviour, tailings chemistry, and arsenic mobilisation are acknowledged but deferred to later investigation or adaptive management.
14. It is also apparent that the risks of mining induced subsidence in this location are not particularly well understood with the information currently available. The assessment of Peter O’Bryan points to the need for a significant amount of additional information to enable full assessments to be completed. The assessment states

"We stress the need for further investigation and analysis for feasibility assessment, detailed mine design and ongoing geotechnical assessment and review during mining once operations are established."[4]

15. The TSF assessments appear to assume that subsidence (such as that induced by the underground mining nearby) will not be an issue. It is understood that the TSF will be established and operating when Underground mining begins, so the ability to adapt the TSF design to address any new information gathered will have gone. It is not clear whether conclusions that there is a remote possibility of subsidence holds if the area was to experience a large seismic event. As the international literature outlines, it is often a series of events that gives rise to TSF failures – not one single factor.

16. The PCE submission cautions that deferring resolution of such matters:

    a. undermines informed consent decisions,

    b. shifts risk from the proponent to downstream landowners, and

    c. is inappropriate for infrastructure expected to remain hazardous in perpetuity.

17. The Trevathan Family share the concerns expressed by the PCE.

18. Independent literature[5] confirms that chronic contamination pathways (groundwater, dust, slow seepage) are often more damaging over time than sudden failures and are frequently under-assessed at approval stage. The PCE submission highlights some of the key

[4] https://www.fasttrack.govt.nz/__data/assets/pdf_file/0014/15521/B.28-Peter-OBryan-and-Associates-Geotechnical-Assessment-Open-Pit-and-Underground-Mining-Rise-and-Shine-Deposit-POB-2025.pdf
[5] *Tailings storage facilities, failures and disaster risk* Nature Reviews Earth and Environment, Volume 5, September 2024 612-630.

conclusions regarding tailings seepage at Page 3. It makes for very troubling reading for the Trevathan Family whose farming operation is reliant on access to safe water for stock, their homes and for irrigation of crops etc.

Mischaracterisation of Compliance With International Best Practice

19. The Applicant claims alignment with the Global Industry Standard on Tailings Management (GISTM), yet relies on:

    a. less stringent flood design criteria,

    b. deferred climate-change allowances, and

    c. national guidelines that do not embed the GISTM's "zero harm / no loss of life" principle.

20. The PCE emphasises that claims of equivalence must be scrutinised, as partial compliance materially alters risk outcomes for downstream communities. Professor Lottermoser's evidence discusses the selective approach taken to application of the GISTM[6].

21. The review article *Tailings storage facilities, failures and disaster risk*[7] highlight the significant consequences that are imposed on communities and the environment when TSF's fail. It highlights the key issues and the significant complexities in building, maintaining and monitoring these facilities to achieve the 'assessed outcomes'. It also points to GISTM being the 'high water mark' for TSF management at the moment, but also notes its non-binding nature unless incorporated into the relevant regulatory regimes. Its limitations are laid bare in the current application given the

[6] Evidence of Bernd Lottermoser for Sustainable Tarras at Page 5-6
[7] *Tailings storage facilities, failures and disaster risk* Nature Reviews Earth and Environment, Volume 5, September 2024 612-630.

incomplete application of its principles by the Applicant. It begs the question – are the Applicant committed to adopting best available practice?

Unresolved residual risk and financial exposure of landowners

22. Even if the TSF is built perfectly and performs "as designed", residual risks of catastrophic or chronic harm remain and are proposed to be borne by downstream landowners, including the Trevathan family.

23. The PCE submission highlights the absence of:

    a. enduring funding mechanisms for post-closure impacts,

    b. event-responsive compensation for third-party loss, and

    c. assurance that intergenerational risks will not default to the Crown or affected landowners.

24. Once the TSF is approved, risk transfer is effectively locked in, regardless of later refinements or monitoring regimes. There are plenty of examples of Government's being left holding the baby, so to speak. The PCE submission identifies New Zealand based examples.

25. The Trevathan Family has specifically raised this concern with the Applicant. Its response was:

    a. If there was leachate contamination it would be breach of the consent conditions and enforceable by the regulator.

    b. If there was a failure of the TSF it would trigger the Applicant's liability insurance noting that this would be in place for the construction and operational phases of the project.

c. The Trevathan's would have a general legal claim.

26. This response has not given the Trevathan's much comfort. It points to the reliance on 3rd parties, the fact that the risks will not be covered by the Applicant beyond the operational phase of the mine, and a 'you will have to sue us' mind set. It does not suggest that the Applicant is willing to take full responsibility for the potential effects of its operation.

27. The effects that the Trevathan's are concerned about are entirely foreseeable if something goes wrong. The Applicant's attitude seems to be 'yeah, but she'll be right'. International experience demonstrates that in fact, there is a good chance it will not be alright, and if it isn't the consequences will be significant.

28. With respect to this issue, if consent is to be granted the Trevathan's seek conditions requiring the Applicant to hold insurance policies specifically for the benefit of the owners of the Trevathan Land. If the worst happens the Trevathan's do not want to be in the queue with all and sundry trying to get access to the money necessary to respond to the impacts of Matakaunui Gold's activity. Such an insurance policy needs to be held for so long as the TSF is a risk.

Conclusion

29. Read together, the Trevathan submission, the PCE's submission, Evidence of Prof Lottermosser and independent scientific literature demonstrates that the application is not decision-ready.

30. The Panel is respectfully urged to:

a. require a genuine alternatives assessment focused on risk avoidance. An option that eliminates the TSF, will go a

considerable way to avoiding the risks of concern to the Trevathan Family.

b. not to rely on deferred investigations for hazards with catastrophic consequences; and

c. ensure that downstream landowners are not compelled to accept uncompensated, intergenerational risk.

31. Approval in the absence of these safeguards would amount to endorsing avoidable risk creation rather than regulating unavoidable risk.

32. It is clear that the application has considerable benefits. Those benefits are predominantly financial, and they accrue over the short to medium term (noting that the current application anticipates mining occurring for approximately 15 years). Whilst the potential adverse effects of concern to the Trevathan Family will persist over the long term – likely over multiple generations.

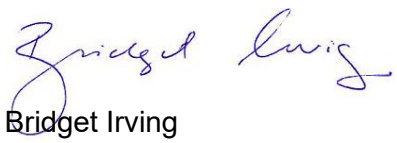
33. From the Trevathan Family's point of view the risk of significant effects will metaphorically sit above them, and any future owners of their land in perpetuity. It will on an ongoing basis effect their decision making and plans for their own land.

34. It is submitted that the relative differences in the timescales over which the benefits and effects accrue is a relevant consideration in determining proportionality.

35. It is also apparent that the drafting of consent conditions (if consents are to be granted) will be critical. Particularly the mechanisms for reviewing detailed design (including the evidence relied upon to inform it), the process for adapting detailed design if on the ground conditions depart from assumed conditions etc. Equally, monitoring

obligations and trigger points need to be clear with established response protocols. Consideration should be given to the monitoring being carried out by an independent 3rd party so that the risk of adverse results being obfuscated is eliminated.

Dated 28 April 2026

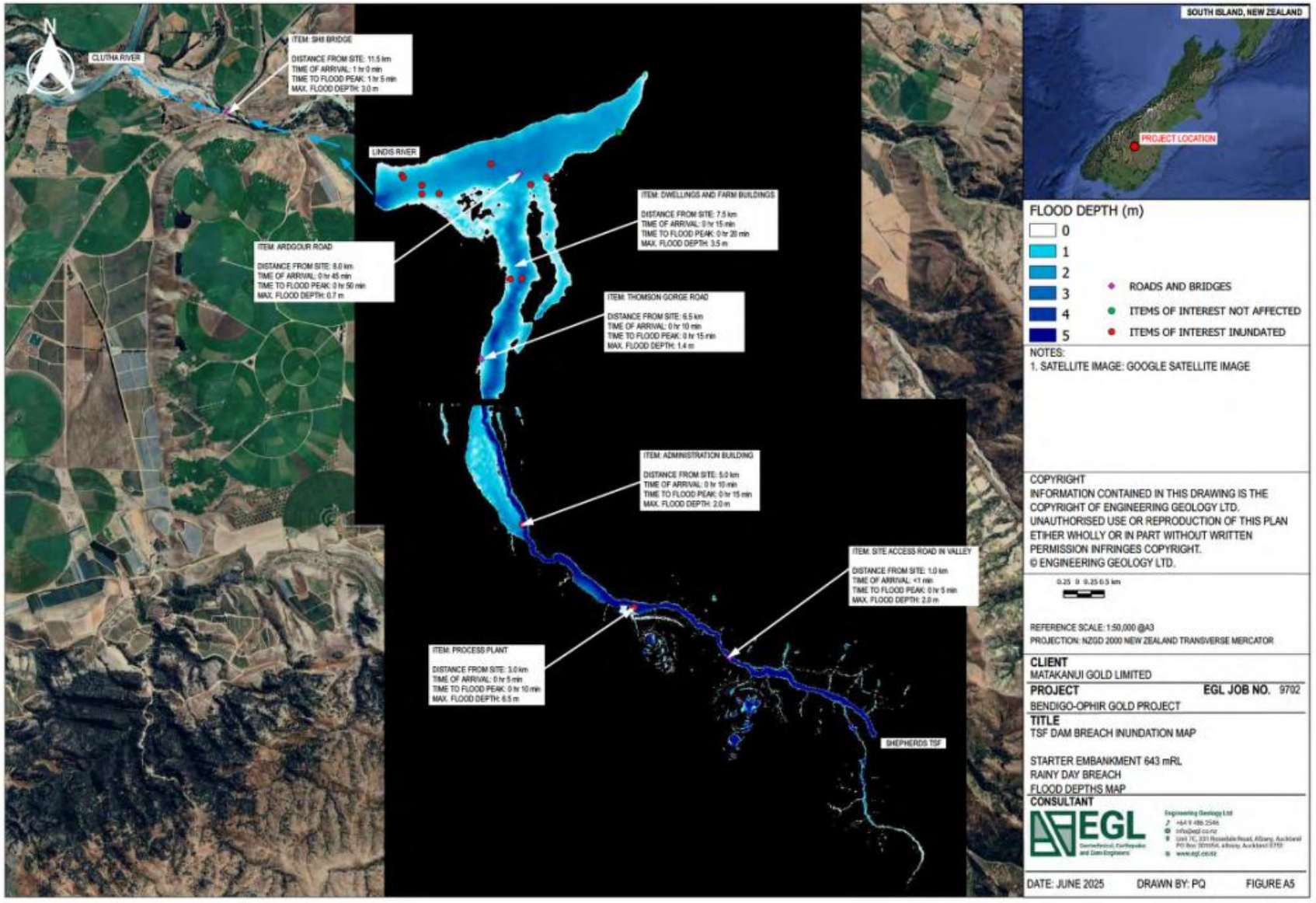


Bridget Irving

Counsel for Trevathan Family

Below images from B.21 Engineering Geology Limited Shepherds Tailings Storage Facility Technical Report

Figure 1: Potential breach flood path, items of interest and approximate distance downstream (Source: Google)


N
CLUTHA RIVER
ITEM: SH8 BRIDGE
DISTANCE FROM SITE: 11.5 km
TIME OF ARRIVAL: 1 hr 0 min
TIME TO FLOOD PEAK: 1 hr 5 min
MAX. FLOOD DEPTH: 3.0 m
LINDIS RIVER
ITEM: DWELLINGS AND FARM BUILDINGS
DISTANCE FROM SITE: 7.5 km
TIME OF ARRIVAL: 0 hr 15 min
TIME TO FLOOD PEAK: 0 hr 20 min
MAX. FLOOD DEPTH: 3.5 m
ITEM: ARDGOUR ROAD
DISTANCE FROM SITE: 8.0 km
TIME OF ARRIVAL: 0 hr 45 min
TIME TO FLOOD PEAK: 0 hr 50 min
MAX. FLOOD DEPTH: 0.7 m
ITEM: THOMSON GORGE ROAD
DISTANCE FROM SITE: 6.5 km
TIME OF ARRIVAL: 0 hr 10 min
TIME TO FLOOD PEAK: 0 hr 15 min
MAX. FLOOD DEPTH: 1.4 m
ITEM: ADMINISTRATION BUILDING
DISTANCE FROM SITE: 5.0 km
TIME OF ARRIVAL: 0 hr 10 min
TIME TO FLOOD PEAK: 0 hr 15 min
MAX. FLOOD DEPTH: 2.0 m
ITEM: SITE ACCESS ROAD IN VALLEY
DISTANCE FROM SITE: 1.0 km
TIME OF ARRIVAL: <1 min
TIME TO FLOOD PEAK: 0 hr 5 min
MAX. FLOOD DEPTH: 2.0 m
ITEM: PROCESS PLANT
DISTANCE FROM SITE: 3.0 km
TIME OF ARRIVAL: 0 hr 5 min
TIME TO FLOOD PEAK: 0 hr 10 min
MAX. FLOOD DEPTH: 6.5 m
SHEPHERDS TSF
SOUTH ISLAND, NEW ZEALAND
PROJECT LOCATION
FLOOD DEPTH (m)
0
1
2
3
4
5
ROADS AND BRIDGES
ITEMS OF INTEREST NOT AFFECTED
ITEMS OF INTEREST INUNDATED
NOTES:
1. SATELLITE IMAGE: GOOGLE SATELLITE IMAGE
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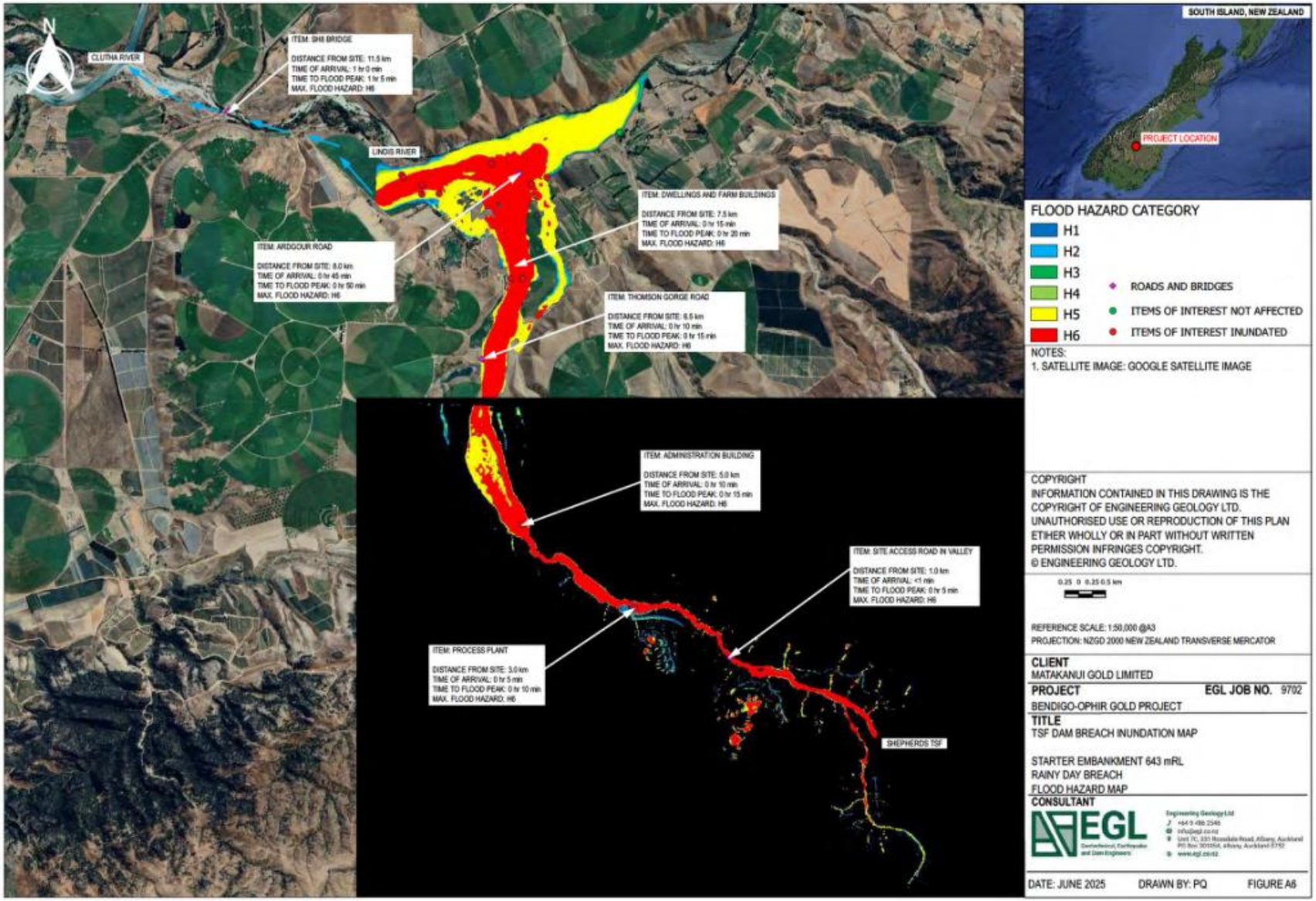
0.25 0 0.25 0.5 km
REFERENCE SCALE: 1:50,000 @A3
PROJECTION: NZGD 2000 NEW ZEALAND TRANSVERSE MERCATOR
CLIENT
MATAKANUI GOLD LIMITED
PROJECT
EGL JOB NO. 9702
BENDIGO-OPHIR GOLD PROJECT
TITLE
TSF DAM BREACH INUNDATION MAP
STARTER EMBANKMENT 643 mRL
RAINY DAY BREACH
FLOOD DEPTHS MAP
CONSULTANT
EGL
DATE: JUNE 2025
DRAWN BY: PQ
FIGURE A5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SHEPHERDS TSF
SOUTH ISLAND, NEW ZEALAND
PROJECT LOCATION
FLOOD HAZARD CATEGORY
H1
H2
H3
H4
H5
H6
ROADS AND BRIDGES
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FIGURE A6