

**BEFORE THE COMMISSIONER ON BEHALF OF
THE OTAGO REGIONAL COUNCIL**

Application No. RM18.004

BETWEEN

PIONEER ENERGY LIMITED

Applicant

AND

OTAGO REGIONAL COUNCIL

Consent Authority

SUPPLEMENTARY EVIDENCE OF WILLIAM JOHN NICOLSON

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SUPPLEMENTARY EVIDENCE OF WILLIAM JOHN NICOLSON

1. My full name is William John Nicolson.
2. I am employed as a Planner and Environmental Scientist at Landpro Limited. My qualifications, experience, and acceptance of the Code of Conduct for Expert Witnesses are set out in my primary evidence. I confirm that this supplementary evidence is likewise prepared in accordance with the Code.
3. This evidence responds to the statement of evidence of Jayde Couper, received 28th June 2022.

Lake Onslow Model

4. Para 10(c) of Mr Couper's evidence states that the least conservative model correction factor of 0.688 has been used in the s42A assessment of effects. I consider that, were the assessment of effects to have been based on the lowest correction factor (0.61), the existing environment (Scenario B) would have been one in which lake levels were lower for longer, when compared to those under the 0.688 correction. My understanding is that this would generally further reduce the potential adverse effects of the proposal, when comparing Scenario C to B.
5. In Para 12 of his evidence, Mr Couper notes that Figure 1 as referred to in Ms Coates' evidence is different to the version of the model assessed in the s42A report, and to the version of the model with the 0.688 correction factor applied. While it would appear that Ms Coates has based her assessment on the model with Taieri inflows and a 1.5 correction factor applied, I do not agree that this makes her evidence generally inaccurate. Based on conversations with Mr Jack (pers. comm. 29/6/22), the model's creator, the model is not able to provide a truly accurate representation of what lake levels would look like under different scenarios – rather, it should be used to compare outcomes under the existing consented baseline (Scenario B) and the proposal (Scenario C). The importance is in comparing the difference between the two scenarios, and this difference remains roughly correlated regardless of variations in inflow and other factors. Given that, Ms

Coates' assessment is still useful, particularly due to the differences being greater with a higher scaling factor.

Teviot River ecological values

6. Mr Couper notes in para 53 that higher lake levels will positively influence downstream ecology in the Teviot River via flushing flows. I draw attention to Condition 2 of Discharge Permit 2001.477, which requires monitoring of the Teviot below the dam for algae accumulation. Condition 3 of the same consent requires subsequent release of flushing flows from the dam (in consultation with ORC and F&G) if algae is determined to be a problem. This will not change under the proposal.

Ecological changes from Scenarios B to C

7. Para 72 of Mr Couper's evidence states that the lake will reach minimum levels 49% of the time under Scenario B and 69% under C. I note that with the 0.688 correction factor applied, the change would be from 60% under B to 77% under C¹. This is important, as it means that the existing environment is one in which the lake remains at the lowest consented level for most of the time. More time at the lowest lake levels under both Scenarios B and C may also equate to greater lake stability (albeit with a smaller lake area), which Mr Couper notes in para 74 will enable macrophytes and macroinvertebrates to establish stable populations.

Scenario D

8. In para 83 Mr Couper states that "the comparison of historical data under the two theoretical regimes provides almost no indication of how the lake would behave in real world conditions." I note that Scenarios B and C, which Ms Coates primarily based her assessment on, provide a "worst case" comparison that assumes the consents will be utilised to their fullest extent and so adverse effects are likely to be at their most severe. Any attempt at comparing effects between Scenarios B and D, which Mr Couper appears to support, would likely under-estimate potential adverse effects from the proposal, and misalign with the position of

¹ Evidence of Tony Jack, Table 1.

Wynn Williams² and adopted by the s42A author³. Notwithstanding this, I do agree that the operating regime under the proposal is likely to be somewhere between Scenarios A and C, and therefore the potential adverse effects of the proposal are likely to be of a lesser degree than those assessed by Ms Coates.

Date: 29 June 2022



Name: Will Nicolson

² S42A Report Appendix 5, e.g. para 8.

³ Section 42A Report, Otago Regional Council, 14 June 2022 (Section 6.1.1)