

In the matter of an application for approvals under the Fast Track Approvals Act 2024

By **Tāiko Critical Minerals**

Applicant

Statement of evidence of Gary Charles Tear in relation to Coastal Hazard

16 March 2026

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Introduction

- 1 My name is Gary Charles Teear.
- 2 My role in relation to the application by Tāiko Critical Minerals Limited (**the application**) for approvals relating to the Barrytown Mineral Sands – Southern Resources Block Project (**the Project**) has been to provide expert advice in relation to Coastal Processes and Hazard.
- 3 I prepared the Coastal Processes Report (**Report**) which has been provided in support of the application.
- 4 The purpose of this evidence is to:
 - (a) provide my qualifications and experience relevant to the Report;
 - (b) confirm my compliance with the Code of Conduct for expert witnesses, contained in the Environment Court of New Zealand Practice Note 2023;
 - (c) provide a brief summary of the report and confirm its contents; and
 - (d) comment on the proposed conditions.

Qualifications and experience

- 5 I am the Managing Director of Offshore & Coastal Engineering Limited (OCEL) with over 50 years' experience in offshore and coastal engineering.
- 6 I am qualified with a Bachelor of Engineering (Honours) First Class and a Master of Commerce (Honours), and have completed the Coastal Studies paper at Masterate level through the University of Canterbury Geography Department. I am a Chartered Professional Engineer (CPEng) and Chartered Member of Engineering New Zealand (CMEngNZ).

Expert witness Code of Conduct

- 7 While this application is not being considered by the Environment Court, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing this evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Summary of Report

- 8 I have reviewed the existing coastal environment and identified the coastal processes and their underlying drivers – wave energy environment and Sea Level Rise (**SLR**) – operating on the Barrytown Beach in front of the proposed application area.
- 9 The West Coast coastline is eroding as a result of sediment being moved northward by littoral drift faster than it is being supplied to the beach. The Barrytown beach coastline is eroding back at an estimated rate of 1 m/year as a result and the shoreline recession rate will be increased by future SLR effects. The proposed mining operation will not affect the natural beach processes.
- (a) The key issue is the rate of erosion of the beach resulting from wave driven littoral drift to the north exacerbated by future SLR. This will be ongoing irrespective of whether mining is undertaken;
 - (b) The historical rate of erosion was determined from the analysis of the position of the vegetation line at the top of the beach from historic photographs. The contribution of SLR to coastal recession was estimated using the Ministry for the Environment 2022 Interim Guidance SSP5-8.5 H+ scenario by applying the Bruun Rule;
 - (c) The proposed mining operation and its rehabilitation will not affect, or be affected by, natural beach processes given the proposal for a 50 m setback from the Mean High Water Springs (MHWS) mark;
 - (d) I have assessed the natural hazard risk as low in accordance with the National Policy Statement for Natural Hazards 2025 (NPS-NH 2025).

Proposed conditions

- 10 I have reviewed the proposed conditions as they relate to my area of expertise.
- 11 I consider that, provided that the 50 m setback from MHWS is re-established at the start of mining for each separate area of the Southern Block, given the time taken to mine each block the mining operation, it will not affect coastal processes.
- 12 Resetting the setback for each stage of mining acknowledges the actual erosion/recession during the mining of the previous block. This has been provided for in Condition 7.1a.

Gary Charles Teear

16 March 2026