

**BEFORE THE INDEPENDENT HEARING PANEL APPOINTED BY THE  
QUEENSTOWN LAKES DISTRICT COUNCIL**

**UNDER** the Resource Management Act 1991 (RMA)  
**IN THE MATTER** of the Te Pūtahi Ladies Mile Plan Variation in accordance  
with section 80B and 80C, and Part 5 of Schedule 1 of the  
Resource Management Act 1991.

---

**STATEMENT OF EVIDENCE OF FRASER ALEXANDER WILSON  
29 September 2023**

---

---

PO Box 323 QUEENSTOWN 9348  
Tel +64 3 379 7622  
Fax +64 3 379 2467

**WYNN WILLIAMS**

Solicitor: L F de Latour | K H Woods  
(lucy.delatour@wynnwilliams.co.nz |  
kate.woods@wynnwilliams.co.nz)

## Introduction

- 1 My name is Fraser Alexander Wilson.
- 2 I am a Senior Engineering Geologist at Geosolve Ltd. I have been in this position since 2013. I am responsible for geotechnical assessment work undertaken by Geosolve in the lower South Island.
- 3 I have been asked to provide evidence by Queenstown Lakes District Council (**QLDC** or **Council**).
- 4 I became involved in the Te Pūtahi Ladies Mile Masterplan and Te Pūtahi Ladies Mile Plan Variation (**TPLM Variation**) when requested to undertake a preliminary geotechnical assessment to inform master planning considerations for the Te Pūtahi Ladies Mile Variation Area (**TPLM Variation Area**). My role has comprised overseeing geotechnical staff compiling geotechnical data and geotechnical fieldwork and issuing of a summary report of the geotechnical considerations. This Geosolve report is titled Preliminary Geotechnical Assessment, Ladies Mile Masterplan Area, Queenstown dated 12 November, 2020 (**Geosolve Report**) and is attached to the section 32 report as Appendix 3A(iii).

## Qualifications and experience

- 5 My qualifications include a Bachelor of Science majoring in Geology and Geography from University of Otago. I am a member of Engineering New Zealand, the International Association of Engineering Geology and the New Zealand Geotechnical Society.
- 6 I have worked as an Engineering Geologist on geotechnical projects for 19 years for Tonkin and Taylor Ltd and Geosolve Ltd, predominantly in Otago and Southland, New Zealand.

## Code of conduct

- 7 I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. Accordingly, I have complied with the Code in the preparation of this evidence and will follow it when presenting evidence at the hearing. Unless I state otherwise, this assessment is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

**Evidence in chief**

8 In preparing my evidence, I have reviewed the following documents:

- (a) The TPLM Variation (and associated documents);
- (b) The submissions that are relevant to my area of expertise;
- (c) Geosolve Report; and
- (d) QLDC Proposed District Plan Chapter 28 – Natural Hazards;

9 The purpose of my evidence is to address geotechnical matters with respect to the TPLM Variation. My evidence relies on the Geosolve Report that I prepared for the TPLM Masterplan Area.

10 As concluded in the Geosolve Report, I consider that the proposed development under the TPLM Variation is feasible from a geotechnical perspective.

11 Ground modelling for the TPLM Variation Area has been determined by investigation including site mapping, review of Otago Regional Council bore data and review of test pit, cone penetrometer testing, heavy dynamic penetrometer testing and sonic boreholes held on the Geosolve database.

12 Natural hazards, including slope stability, rock fall, alluvial fan, flooding and liquefaction have been assessed. The Geosolve Report assessment concludes that standard engineering solutions are available to mitigate or avoid the impact of these hazards on the proposed development area.

12 Weaker surface soils are present in some areas and can be addressed by ground improvement cut and fill earthworks and site-specific foundation design solutions.

13 Further geotechnical assessment will be required during the detailed design phase to optimise the earthworks design and finalise foundation and retaining designs. However, further work to determine feasibility of development is not considered necessary. No geotechnical issues were identified that cannot be addressed by standard engineering assessment and construction practices. Specific geotechnical design input will be required for retaining design, slope stability, rock fall, alluvial fan, liquefaction risk, foundations and construction methodology.

- 14 I understand that the Natural Hazards Chapter of the Queenstown Lakes Proposed District Plan will apply to development within the TPLM Variation Area. This chapter provides policy guidance for natural hazards that exist in the Queenstown Lakes District (**District**) and will inform decision making on land use and subdivision consent applications that are made in the TPLM Variation Area. No changes have been proposed to these provisions as part of the TPLM Variation and in my view they are appropriate and will respond to any of the issues that require further investigation identified in the Geosolve Report.

### **Response to Submissions**

- 15 I have reviewed the submissions that relate to geotechnical matters.
- 16 John Alexander (submitter 70), submits that there is a 75% risk of an alpine fault rupture and that this should be taken into account as part of the TPLM Variation.
- 17 I consider that the risk of an alpine fault rupture has sufficiently been taken into account in the TPLM Variation. Geotechnical hazards have been addressed in the Geosolve Report. Seismic hazards are addressed in the Geosolve Report and will be addressed as part of building code requirements. Further, additional population in the TPLM Variation Area can be addressed in QLDC emergency response planning for the District.
- 18 I am aware that there are a number of submissions that seek additional land be included in the TPLM Variation Area. In particular Anna Hutchinson Family Trust (submitter 107) seeks that a large area of land on the Western Slopes and Terraces (as identified in Appendix A, Figure 1 attached to the Geosolve Report) is rezoned as part of the TPLM Variation. Geosolve did not have access to this land as part of its investigations and cannot comment further on geotechnical matters for this site at this stage.

**Overall conclusion regarding the proposal**

- 19 I consider that the proposed development of the TPLM Variation Area is feasible from a geotechnical perspective.

**Fraser Alexander Wilson**

**29 September 2023**