BEFORE THE HEARINGS PANEL FOR THE QUEENSTOWN LAKES PROPOSED DISTRICT PLAN

IN THE MATTERof the Resource
Management Act 1991ANDof Stage 3b of the
Proposed District Plan
submission to notified
Walter Peak Rural
Visitor Zone

REBUTTAL EVIDENCE OF ROBERT BOND ON BEHALF OF QUEENSTOWN LAKES DISTRICT COUNCIL

GEOTECHNICAL ENGINEERING — WAYFARE GROUP LIMITED REZONING

11 JUNE 2021



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1. INTRODUCTION

- **1.1** My full name is Robert Bond. My qualifications and experience are set out in my statement of evidence in chief dated 4 March 2021 (**EiC**).
- **1.2** This statement of rebuttal evidence is provided for Queenstown Lakes District Council (**Council**, or **QLDC**).
- **1.3** I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise except where I state that I am relying on the evidence of another person.

2. SCOPE

- 2.1 My rebuttal evidence responds to the evidence filed on behalf of Wayfare Group Limited (**Wayfare**) (in the same order as listed below):
 - (a) Mr Grant Meldrum (civil engineer); and
 - (b) Mr Stephen Skelton (landscape architect).
- **2.2** My evidence has the following attachment:
 - (a) Appendix A maps identifying Natural Hazard Building Restriction Areas and Hazard Management Area.

3. MR GRANT MELDRUM (CIVIL ENGINEER)

- 3.1 Mr Meldrum has filed evidence addressing natural hazards relative to the site. I have reviewed this evidence and generally concur with Mr Meldrum's observations and comments in relation to the presence and extent of both liquefaction hazards and debris flow hazards at the site.
- **3.2** In terms of liquefaction hazards, I agree with Mr Meldrum's paragraphs 23 to 25 that such hazards, while present at the site, are relatively low risk and can be addressed by the New Zealand building code verification

method B1/VM4.¹ As such, any mitigation will be able to be addressed at the time of building consent.

- **3.3** I also concur with Mr Meldrum's opinion in his paragraphs 22 and 26 to 29 that the report produced by Golder Associates (appended to Mr Meldrum's evidence) accurately identifies those parts of the site at risk from debris flows, and that Zone A and Zone C (as shown on the plans presented in the Golder report and in Mr Meldrum's evidence), are at a higher risk of debris flow than Zone B, but that Zone B may also be potentially affected by such hazards.
- 3.4 I further agree with Mr Meldrum's paragraph 33, that buildings or structures for living purposes, should not be located within Zones A and C. However, I do not understand there to be any proposed provisions that would ensure this outcome is achieved. I acknowledge that this is a planning matter however.
- **3.5** Mr Meldrum makes no comment on the proposed inclusion or extent of the Building Restriction Area (**BRA**), as a means of managing natural hazard risk, or that the location of the BRA does not align with Zones A and C. If the intent is for the BRA to reflect the areas that have increased natural hazard risk, in my view the BRA should be aligned with the boundaries of those areas and this should be recognised in the proposed provisions to improve certainty.
- **3.6** Mr Meldrum notes at his paragraph 34, that ancillary structures could be included within Zones A and C. While I do not disagree with this statement, any such structure would need to be designed to ensure that the debris flow paths are not unnecessarily impeded and that the structure can withstand any debris flow or flood impact.
- **3.7** I also agree with Mr Meldrum's position at his paragraph 10 that the current forms of debris flow mitigation appear appropriate to manage risk in Zone A and C, but will require future management and maintenance in order to maintain their effectiveness. It is my opinion that this should not

B1/VM4 (Foundations) is a verification method for compliance with the New Zealand Building Code – https://www. building. govt. nz/assets/Uploads/building-code-compliance/b-stability/b1-structure/asvm/b1structure-1st-edition-amendment-19. pdf.

be overlooked as part of any rezoning request and that further inspections and mitigation measures may be required on the site in relation to flood or debris flow in the future.

- **3.8** Overall, I maintain the position expressed in my EiC that the extent of debris flow risks at the site requires a planning mechanism such as a BRA to ensure that buildings or structures used for residential purposes or visitor accommodation, are not constructed within Zones A and C. I am also of the opinion that the requirement for the ongoing management and maintenance of existing mitigation measures, (including management systems and evacuation plans) should be required through the plan provisions, to ensure appropriate risk management of Area B. Until these matters are addressed, I continue to oppose the rezoning request.
- 3.9 Mr Matthee (for Council) has attached to his rebuttal evidence, proposed draft provisions for natural hazards at Walter Peak. I have attached, at Appendix A, two maps identifying the zones these provisions will apply to BRAs (Areas A and C) and Hazard Management Area (Area B).

4. MR STEPHEN SKELTON (LANDSCAPE)

4.1 I have also reviewed the evidence of Mr Skelton; in which he recommends inclusion of the Mountain Slopes area in a BRA (see his paragraph 40). I understand Mr Skelton's position in relation to the need for a BRA to have derived from a landscape perspective, that is, to mitigate landscape effects, rather than natural hazards effects. Irrespective of this, my position that a BRA should be established over the site to prevent the construction of buildings or structures within Areas A and C remains.

Robert Bond 11 June 2021

APPENDIX A Maps identifying Natural Hazard Building Restriction Areas and Hazard Management Area



