

Before Queenstown Lakes District Council

In the matter of The Resource Management Act 1991

And The Queenstown Lakes District Proposed District Plan
Stream 14 Wakatipu Basin rezoning

STATEMENT OF EVIDENCE OF JAMES WILLIAM PETER HADLEY FOR

Barnhill Corporate Trustee Limited and DE, ME Bunn & LA Green (#2509)

Morven Ferry Limited (#2449)

Dated 11 June 2018

Applicant's solicitors:
Vanessa Robb | Vanessa Robb

Anderson Lloyd
Level 2, 13 Camp Street, Queenstown 9300
PO Box 201, Queenstown 9348
DX Box ZP95010 Queenstown
p + 64 3 450 0700 | f + 64 3 450 0799
vanessa.robb@al.nz | vanessa.robb@al.nz

**anderson
lloyd.**

QUALIFICATIONS AND EXPERIENCE

- 1 My name is James William Peter Hadley. I am a consulting civil and structural engineer and Principal of the consulting engineering company Hadley Consultants Ltd. (HCL)
- 2 I hold the qualifications of Bachelor of Engineering (Civil) with Honours. I am a Chartered Member of Engineering New Zealand (CMEng), a Chartered Professional Engineer (CPEng) and a member of the International Professional Engineers Register (IntPE). I have over 25 years' experience in the design and construction of civil and building structures with particular expertise in the design and construction of development infrastructure for roading, water supply, wastewater and stormwater disposal systems. I have extensive experience in design and implementation of infrastructure works for both private companies and for Local Authorities throughout the lower South Island.

CODE OF CONDUCT

- 3 Whilst this is not an Environment Court Hearing, I confirm that I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Practice Note dated 1 December 2014. I agree to comply with this Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

SCOPE OF EVIDENCE

- 4 HCL have been engaged by the land owners (Morven Ferry Limited & Barnhill Corporate Trustees Limited, D. E. & M. E Bunn & L.A. Green "Barnhill")) and, to provide civil engineering advice relating to the 3 Waters servicing and Natural Hazard issues for the proposed zone change identified in their Submissions 2449 and 2509.
- 5 In 2015 my firm prepared separate reports for Morven Ferry Limited and Barnhill with regard to their adjacent land. Reports for both parties related the Preliminary Assessment of Natural Hazard Risk and Servicing Feasibility to support the Morven Ferry Limited and Barnhill Submissions on Stage 1 of the Proposed District Plan (PDP). I refer to these as the "Stage 1 Assessments".
- 6 I understand that the current Barnhill Stage 2 Submissions (to which this evidence relates) have been varied slightly from what was proposed in Stage 1 whereby average lot sizes were sought for the Rural Residential Zone areas (in the alternative, it is sought that proposed RRZ areas are zoned WBLP). In order to alleviate some concerns raised, the submitters now seek a 4000m² minimum lot size provision. I am

also aware that new building coverage restrictions are now proposed to apply to Rural Visitor Zones A and B.

- 7 My evidence will address the following:
- (a) Confirmation of the basis and conclusion of HCL's earlier Stage 1 Assessments.
 - (b) The changes now made to the zoning proposals for the sites since the Stage 1 Assessments were prepared and in particular the change in water demand volumes and wastewater flow generation that could apply after confirming amended Stage 2 minimum lot sizes and building coverage.
 - (c) Assessment of whether the changes made to the zoning proposals under the Stage 2 Submissions alters the previous Stage 1 assessment of Natural Hazards for the sites and whether any constraints exist for development.
 - (d) Assessment of the feasibility of 3 Waters Infrastructure servicing under the amended Stage 2 demand scenario arising from alternate zonings and building coverage limits.

DOCUMENTS REVIEWED

- 8 In preparing this evidence I have reviewed the following documents and reports:
- (a) HCL's Stage 1 Assessments
 - (b) Stage 2 Submissions 2449 and 2509, including the relevant accompanying expert reports.
 - (c) The evidence of Andrea Jarvis for the Queenstown Lakes District Council (QLDC), dated 28 May 2018.

PREVIOUS REPORTING

- 9 HCL's Stage 1 Assessments (in 2015) related to the feasibility of infrastructure services and the impact of Natural Hazards on the earlier Stage 1 proposals by Morven Ferry Limited and Barnhill.
- 10 The earlier 2015 Stage 1 work assessed rezoning approximately 47.7ha as a Rural Residential Zone and 20.2ha as a Rural Visitor Zone. The proposed new zones were all accessed off Morven Ferry Road. The investigation and reporting work concluded that;
- (i) It was feasible to service the Stage 1 rezoning proposals with both potable water and wastewater disposal solutions which would satisfy QLDC standards. These solutions involved development of new

private water and private wastewater schemes to service the proposed new zones.

- (ii) Stormwater runoff could be adequately managed for the proposed new zones in accordance with QLDC Standards, including use of Low Impact Design (LID) principles.
- (iii) Natural hazard issues did not inhibit the development proposals over the areas to be rezoned.

THE KEY CHANGES IN THE STAGE 2 PROPOSAL

- 11 Since the Stage 1 Assessments were prepared, the key changes that have been made to the zoning proposals pursued for each area (being an alternative amended WBLP zoning via Stage 2 of the PDP) are as follows;
- (a) The areas to which the Stage 2 zoning proposals relate are unchanged and remain the same as addressed in HCL's Stage 1 Assessments. Therefore, there is no affect on HCL's Stage 1 Assessment of natural hazard impacts for the site and our Stage 1 findings are unchanged.
 - (b) The proposed zoning density in terms of development potential for the Rural Residential Zone/WBLP (47.7ha) has been amended to a minimum lot size of 4,000m². The Stage 1 Assessments were considered on the basis of conservative potential flow generation using the minimum average lot size for the Rural Residential Zone in 2015. This was also 4,000m². Accordingly, the new Stage 2 proposals do not impact the demand scenarios considered in the Stage 1 Assessments and consequently there is no impact on, or change to, the findings of HCL's earlier Stage 1 work.
 - (c) There are some changes proposed to the maximum permitted building coverage in the Rural Visitor Zones. The Stage 1 Assessments considered Rural Visitor Zone A (1.5ha) with no building coverage limit and Rural Visitor Zone B (18.7ha) with a 5% building coverage limit, equating to a maximum building coverage of some 9,350m². Under the Stage 2 proposal, Rural Visitor Zone A is now limited to a maximum building coverage of 1,500m² (being 10%) and Rural Visitor Zone B is limited to a maximum of 3,000m². These new Stage 2 proposals are therefore now considerably less than the potential demand considered under the Stage 1 Assessments and again there is no impact on, or change to, the findings of HCL's earlier Stage 1 work.

NATURAL HAZARDS ASSESSMENT FOR STAGE 2

- 12 As stated at 11(a), there is no change to the areas to which the Stage 2 zoning proposals relate and as such there is no effect on or change to HCL's Stage 1 Assessments. Therefore, natural hazard issues do not inhibit the Stage 2 rezoning proposals by Morven Ferry Limited & Barnhill.

3 WATERS SERVICING FEASIBILITY FOR STAGE 2

- 13 The demand scenarios under the Morven Ferry Limited & Barnhill rezoning proposals in Stage 2 have been compared against the Stage 1 Assessments and have been found to be less than those considered in HCL's Stage 1 work. Therefore, it is feasible to service the Stage 2 rezoning proposals with both potable water and wastewater disposal solutions which would satisfy QLDC standards. These solutions involve development of new private water and private wastewater schemes to service the proposed new zones. There is no change in the areas included in the Barnhill Stage 2 Submission, therefore there is no change in the findings of the Stage 1 Assessments for stormwater.

THE EVIDENCE OF ANDREA JARVIS

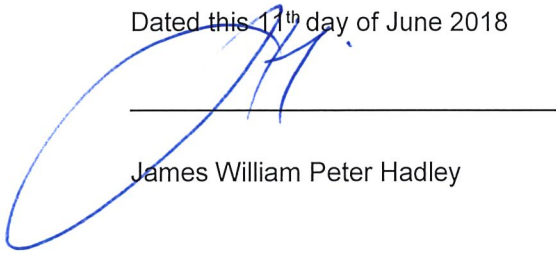
- 14 Andrea Jarvis addresses the Morven Ferry Limited & Barnhill proposals at her paragraph 88.1 and does not oppose the rezoning requested from an infrastructure perspective. Ms Jarvis notes the expectation that sites such as Morven Ferry Limited & Barnhill's will be serviced privately on-site at the developer's cost, and due to this on-site servicing, there is no increase in the QLDC infrastructure requirements (physically and financially). She further notes that there should be no expectation that the on-site infrastructure will ultimately be joined to the Council schemes.
- 15 I agree with Ms Jarvis and confirm that the basis of the feasibility assessment of the 3 Waters infrastructure for the proposed Barnhill Stage 2 rezoning is consistent with her qualifications and assumptions that any on-site infrastructure will remain privately owned.

CONCLUSION

- 16 The Morven Ferry Limited & Barnhill Stage 2 Submissions for rezoning have been considered against the 2015 Stage 1 Assessments conducted by HCL.
- 17 The findings of the Stage 1 Assessments are unchanged whereby natural hazard issues do not inhibit the Stage 2 rezoning proposals and it remains feasible to provide private 3 Waters infrastructure to service the proposed rural living areas

and Rural Visitor areas requested by Morven Ferry Limited & Barnhill under their Stage 2 Submission.

Dated this 11th day of June 2018

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke, is written over a solid black horizontal line.

James William Peter Hadley