

**BEFORE THE HEARINGS PANEL
FOR THE QUEENSTOWN LAKES PROPOSED DISTRICT PLAN**

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of Hearing Stream 14:
Wakatipu Basin
hearing and
transferred Stage 1
submissions related to
Arrowtown and Lake
Hayes

**REBUTTAL EVIDENCE OF ANDREA THERESE JARVIS
ON BEHALF OF QUEENSTOWN LAKES DISTRICT COUNCIL**

INFRASTRUCTURE

27 June 2018

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1. INTRODUCTION

- 1.1** My full name is Andrea Therese Jarvis. I am a Project Director – Civil and have been employed by Holmes Consulting since 2010.
- 1.2** My qualifications and experience are set out in my statement of evidence in chief dated 28 May 2018.
- 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 is provided in response to the following evidence filed on behalf of various submitters:
- (a) Mr Charles Hansen for Middleton Family Trust (2332);
 - (b) Mr James Hadley for Boxer Hill Trust (2385 and 2386);
 - (c) Mr Anthony Steel for X Ray Trust Ltd & Avenue Trust (2619);
 - (d) Ms Louise Taylor for X Ray Trust Ltd & Avenue Trust (2619);
 - (e) Mr John McCartney for Spruce Grove Trust (2513); and
 - (f) Mr John Kyle for A Feeley, E Borrie & LP Trustees Limited (2397).
- 2.2** I have read the evidence of the following experts, and consider that no response is needed:
- (a) Mr James Hadley for Morven Ferry Ltd (2449);
 - (b) Mr James Hadley for Trojan Helmet (2387);
 - (c) Ms Amanda Leith for Spruce Grove Trust (2512);
 - (d) Mr John McCartney for Spruce Grove Trust (2512 and 2444);
and
 - (e) Mr Daniel Thorne for D Boyd (838).

- 2.3** Although the rebuttal filing date for submission 2386 is 4pm Friday, 29 June, I have included my response in this rebuttal statement to Mr Hadley's evidence for submission 2386. This is because Mr Hadley's evidence for submission 2386 is the same as his evidence for submission 2385, which was filed earlier.

LCU 4 TUCKERS BEACH

3. CHRISTOPHER HANSEN FOR MIDDLETON FAMILY TRUST (2332)

- 3.1** Mr Hansen has filed evidence in relation to Infrastructure. Mr Hansen states at paragraph 5.2 that a sewer pump station would be constructed to pump wastewater generated within the development into the Tucker Beach Road sewer network. Paragraph 5.3 states that development contributions would mitigate the cost of treatment plant capacity upgrades and a minor amount of reticulation.
- 3.2** Mr Hansen states in paragraph 7.2 that a new water reservoir would be required to support the development. In paragraph 7.3 he states that the submitter could provide the land and access for a new reservoir. In paragraph 7.8 Mr Hansen states that further modelling would need to be undertaken to confirm availability of supply.
- 3.3** In paragraph 2.2 Mr Hansen states that new infrastructure required would be constructed at no or little cost to QLDC.
- 3.4** The evidence filed by Mr Hansen does not address the capacity of the wastewater reticulation between the requested rezoning area and the Shotover treatment plant.
- 3.5** As noted by Mr Hansen in paragraph 7.8, modelling to confirm availability of supply for the water network has not been undertaken.
- 3.6** Mr Hansen's evidence does not confirm infrastructure capacity for the requested rezoning, and for that reason, and for the reasons stated in paragraphs 3.1 – 3.4 of my evidence in chief, I continue to oppose the requested rezoning from an infrastructure perspective.

LCU 8 SPEARGRASS FLATS

4. JAMES HADLEY FOR BOXER HILL TRUST (2385, 2386)

- 4.1** Mr Hadley has filed evidence in relation to infrastructure for submissions 2385 and 2386. Mr Hadley states in paragraph 10 that reports submitted with the submitter's Stage 1 submission remain relevant to the increased density associated with the Stage 2 submission. In paragraph 14, Mr Hadley states that the Stage 1 submission report found that it was feasible to service the (Stage 1) rezoning via either connection to the reticulated water network, or via a private community scheme that would remain private. Similarly, in paragraph 18, Mr Hadley states that the Stage 1 submission report found that it was feasible to service each of the sites by either connection to the QLDC wastewater scheme, or via development of a private communal on-site wastewater disposal scheme within each site. In paragraphs 15-16 and 19-20 Mr Hadley states that the increased volumes for water and wastewater associated with the density sought in the Stage 2 submission do not change the conclusions of his company's Stage 1 submission report for the applicant. The Hadley Consultants Stage 1 infrastructure reports are attached to Mr Hadley's evidence.
- 4.2** Whilst the capacity of the water and wastewater networks to support the site has not been confirmed, the Stage 1 infrastructure reports provide an option for the sites to be serviced by private schemes, with no impact on the QLDC infrastructure.
- 4.3** Consequently, because there are options that do not impact on the council water and wastewater networks, I no longer oppose the relief sought, from an infrastructure perspective for submission 2385.
- 4.4** I also do not oppose the relief sought for submission 2386, from an infrastructure perspective, including for the reasons set out at paragraphs 5.1 – 5.3 in my evidence in chief.

5. LOUISE TAYLOR FOR X RAY TRUST & AVENUE TRUST (2619)

- 5.1** Ms Taylor has filed planning evidence for submission 2619. Ms Taylor states at paragraph 4.11 that my statement that the relief sought does not seek any rezoning is incorrect, and clarifies that the submission seeks a change to its zoning. This submission seeks that part of the site is rezoned from Amenity Zone to Precinct, and another part is rezoned from Precinct to Amenity Zone, which would change the location of development opportunity for the site. Ms Taylor then refers to Mr Steel's evidence.
- 5.2** Mr Anthony Steel has filed evidence in relation to infrastructure. Mr Steel states in section 11 that the water supply for the rezoning can be provided by on-site means, or possibly via connection to the Council water scheme, if supported by modelling. Mr Steel states in section 12 that the wastewater servicing for the rezoning requested can be provided by on-site means, or possibly via connection to the Wakatipu Basin wastewater scheme, if supported by modelling.
- 5.3** I acknowledge the clarification regarding the rezoning sought, and the specific infrastructure evidence provided. I note that this does not change my conclusion provided in my evidence in chief, which was that the proposed density of development can be supported by on-site means. I therefore do not oppose the rezoning requested from an infrastructure perspective.

LCU 23 MILLBROOK

6. SPRUCE GROVE TRUST (2513)

- 6.1** Mr John McCartney has filed evidence in relation to Infrastructure. Mr McCartney states in paragraph 8 that this rezoning request was not assessed in my evidence in chief. He states that this submission is similar to that provided by submitters 2512 and 2444, and that he therefore anticipates that a similar conclusion would be reached for this submission.

6.2 I agree with Mr McCartney's evidence in this regard, and refer to the conclusions of my evidence in chief, in section 78.

6.3 Consequently, I do not oppose the rezoning requested to incorporate these lots within the Millbrook Special Zone from an infrastructure perspective, on the condition that development contributions are made to cover the headworks upgrades required to support the zone extension, or a revised development agreement provides similar relief.

7. JOHN KYLE FOR A FEELEY, E BORRIE & LP TRUSTEES LTD (#2397)

7.1 Mr Kyle has filed planning evidence in relation to this submission. Mr Kyle states at paragraph 2.21 that my evidence in chief concluded that there was insufficient capacity in the receiving wastewater network for the rezoning requested, based on the site accommodating 93 lots. He has stated in paragraph 2.19 that a servicing assessment report by Hadley Consultants has now been provided, and that the report finds that the site can be serviced for water and wastewater, either by connection to the existing reticulation or via on-site servicing.

7.2 I have read the Hadley Consultants report provided, and note that it concludes that the wastewater network should have capacity, based on the average grade of the sewer between the site and the pumping station. This conclusion does not allow for any fluctuations in gradient along the line, which may result in capacity constraints along the line. The Hadley Consultants report states that local constraints could be removed by upgrading the infrastructure. They also provide options for a stand-alone on-site network, or should further investigation show that the pipe does not have capacity either a pressure sewer network or pump station to pump at off-peak times. There is insufficient evidence in the report to demonstrate whether there is capacity for the QLDC infrastructure to receive the wastewater, without upgrades that are not currently planned.

7.3 An on-site wastewater system may be technically feasible within the land in question, however there is no evidence provided regarding how this would be owned or managed, and the on-going operation of such a system would be onerous and an inefficient use of infrastructure. The

potential upgrades required to provide capacity have not been identified, nor who will be responsible for any ongoing costs.

7.4 Therefore, I continue to oppose the relief sought, from an infrastructure perspective, as capacity within the Council wastewater network has not been confirmed.

A handwritten signature in black ink, appearing to read 'A. Jarvis', with a long horizontal stroke extending to the right.

Andrea Therese Jarvis

27 June 2018