

**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 GLENN ALISTER DAVIS
ON BEHALF OF QUEENSTOWN LAKES DISTRICT COUNCIL**

ECOLOGY

27 June 2018

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1. INTRODUCTION

- 1.1** My full name is Glenn Alister Davis. I am a Principal Environment Scientist and Director of e3Scientific Limited. I have been in this role since 2007.
- 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 Nicholas Geddes on behalf of Ladies Mile Consortium (#2489) and Felzpar Properties Limited (#0229); and
 - (b) Ms Ruth Goldsmith on behalf of Waterfall Park Development Limited (#2388).
- 2.2** I have read the evidence of the following experts, and consider that no response is needed:
- (a) Mr Ben Farrell on behalf of Wakatipu Equities Limited (#2479/2750);
 - (b) Ms Louise Taylor on behalf of X Ray Trust Limited and Avenue Trust (#2619);
 - (c) Dr Shayne Galloway on behalf of Morven Ferry Limited (#2449); and
 - (d) Mr Simon Beale on behalf of Hogans Gully Farm (#2313).

3. NICHOLAS GEDDES FOR FELZAR PROPERTIES LIMITED (229)

- 3.1** Mr Geddes has filed evidence in relation to conservation values associated with a proposed rezoning of land at Ladies Mile and states in paragraph 5.19 that a *“site inspection did not reveal any significant areas of native vegetation and none are recognised in the PDP”*.
- 3.2** I completed a visit to the site on the 18 June 2018 to view the land associated with the rezone submission. I can confirm that all of the subject land has been modified and consists of developed paddocks, exotic hedgerows and residential houses. There is a wetland bordering Lake Hayes at the eastern extent of the site that contains *Carex secta*, which will provide habitat for indigenous invertebrates and birds. However, the wetland is just outside the boundary of the area within the submission.
- 3.3** Based on a lack of indigenous vegetation or habitat remaining on the site, I agree with Mr Geddes that there is no significant conservation values associated with the proposed rezoning.

4. RUTH GOLDSMITH FOR WATERFALL PARK (2388)

- 4.1** Ms Ruth Goldsmith has filed evidence in relation to aquatic ecological values and effects associated with a submission to rezone part of Ayrburn farm for residential activity. I note that the evidence presented reads as an assessment of environmental effects that would usually be provide alongside a consent application for a specific proposal. The subject land is adjacent to Mill Creek and Ms Goldsmith’s evidence examines the freshwater ecological values of Mill Creek and potential ecological effects associated with residential development.
- 4.2** Ms Goldsmith has completed a field survey of Mill Creek within the boundaries of the site and assessed the instream ecological values at three locations along the creek. The assessment provides good ecological information and improves knowledge of the freshwater ecological values in the lower reaches of Mill Creek.

- 4.3** Ms Goldsmith sets out a range of potential effects on Mill Creek associated with the residential development of the land including sediment discharges during construction and stormwater discharges post-development. In my evidence in chief I note that any development of land within the Lake Hayes catchment that results in the loss of sediment and adds to nutrient loading could further erode the water quality of Lake Hayes. Strong controls on activities associated with development including earthworks, stormwater run-off, landscaping projects and maintenance work will be necessary to mitigate contaminant loss to the lake.
- 4.4** Ms Goldsmith considers the proposed residential development will result in a positive effect on water quality as the residential activity will have a reduced nutrient loading compared to the current working sheep farm and the proposal includes riparian planting 2 – 4 metres either side of Mill Creek. I am unable to comment on the accuracy of the modelling undertaken regarding a reduction in nutrient loading associated with a residential landuse however, I do agree that extensive riparian planting can capture contaminant runoff and improve freshwater habitat.
- 4.5** Ms Goldsmith states that residential development will increase stormwater discharges to Mill Creek and that stormwater is likely to have different water quality attributes compared to runoff that currently enters the creek. Ms Goldsmith also recognises that stormwater can contain a range of contaminants and that stormwater runoff from the site may increase.

4.6 Ms Goldsmith concludes that no adverse effects on aquatic life will result from the development based on a Fluent Solutions stormwater design that is consistent with meeting the anticipated QLDC and ORC requirements for flood management and attenuation of treatment of stormwater. I have not reviewed the stormwater treatment solutions for the proposed residential development as it is beyond my expertise, but I do note that there are not only sensitive aquatic receptors but people that utilise the creek and Lake Hayes and it will be critical that the stormwater quality is managed effectively.

A handwritten signature in black ink, consisting of a stylized 'G' and 'A' followed by the name 'avis'.

Glenn Alister Davis

27 June 2018