

BEFORE THE QUEENSTOWN LAKES DISTRICT COUNCIL

IN THE MATTER of the Resource Management Act ('Act')

AND

IN THE MATTER of the submission by Lake Wakatipu Station Limited on the QLDC Proposed District Plan 2015 (Stream 13) to rezone a piece of land from Rural General to Rural Visitor

STATEMENT OF EVIDENCE OF ANTHONY CHARLES STEEL

Lake Wakatipu Station (Submitter #478)

9th June 2017

1. My name is Anthony Charles Steel
2. I am a Civil Engineer with over 30 year's experience in the infrastructure and environmental engineering fields. I graduated from the University of Canterbury in 1984 with a Bachelor of Engineering Degree – Civil Engineering.
3. I am the Managing Director of Fluent Infrastructure Solutions Ltd. Our company specialises in infrastructure and three waters engineering design and implementation.
4. I have completed multiple infrastructure reports, designs and reviews throughout New Zealand and overseas over the last 24 years. During that time I have worked on infrastructure projects in the Queenstown Lakes District including earthworks, roading, streets, water supply, wastewater and stormwater upgrades. I was the Design Team Leader for the infrastructure for the Kawarau Falls Station development (where the Hilton Hotel is located) and have just completed the infrastructure design for the new town centre development and high density residential housing areas on Frankton Flats – between Countdown and Mitre 10 Mega.
5. I have worked on the self-sufficient infrastructure design of developments around Lake Wakatipu including Lakeside Estates and Jacks Point. I also have considerable experience in Project Management and Contract Administration and Observation works to implement designs completed by myself and my design team.
6. In this matter I have been engaged by Ben Farrell to comment on the submission by Lake Wakatipu Limited on its submission to rezone 32ha of land located on the alluvial terraces of Halfway Bay south of the Lochy River from Rural General to Rural Visitor. More specifically, I was asked to review and comment on paragraphs 8.64-8.67 of the evidence of Mr Ulrich Glasner dated 24 May 2017, which state:

8.64 Lake Wakatipu Station Limited & Review Seventeen Limited have sought that 32.5 ha of land be rezoned from Rural to Rural visitor. The Rural Visitor zone is an operative zone that hasn't been reviewed yet.

8.65 The site is the flat land at Halfway Bay on the western shore line of the southern arm of Lake Wakatipu. The land is outside the Queenstown

three waters schemes. The submitter has not indicated the proposed extent of development or how they intend to service the site.

8.66 It is unclear what the proposed development would be and how it is proposed to be serviced. The site is susceptible to liquefaction. The ORC Otago Water Plan Change 6A Maps identify the area as part of the nitrogen sensitive large lake catchment area. Any development would need to use advanced treatment systems to treat wastewater.

8.67 In summary, I oppose the rezoning to (operative) Rural Visitor, from an infrastructure perspective, because it potentially allows a large high density development in a rural area and it is unclear how servicing of this site is planned, and whether it is feasible given site constraints.

7. Having reviewed aerial video footage and photos of the site, and correspondence from Paul Faulkner of Geosolve Limited commenting on the geological conditions and natural hazard risks of the site, I am of the opinion that it is feasible for rural visitor development on the site to be designed and implemented in such a way that:
 - a. Is self-sufficient in that can be readily and appropriately serviced in respect of water supply, stormwater and wastewater without relying on any council or offsite infrastructure.
 - b. Will not create any significant environmental effects on the receiving environment (Lake Wakatipu and the Short Burn and Lochy Rivers).
8. To ensure the above outcomes I am satisfied that the following could be implemented:
 - a. A potable drinking water and fire fighting water supply could be constructed using current practices and techniques with sufficient water being able to be sourced, treated and distributed to consumers meeting the NZ Drinking Water Standards and at sufficient flows and pressures in compliance with Queenstown Lakes District Council development engineering standards.
 - b. There is sufficient, suitable area in the land proposed for development wastewater to be collected, treated and disposed of to ground. As noted by Mr Ulrich Glasner the use of advanced treatment systems to treat the wastewater may be required depending on the density of any development in the future.

- c. The location and topography of the site will allow a stormwater system to be designed for the development to cope with storm events meeting the Queenstown Lakes District Council development engineering standards.

A handwritten signature in black ink, appearing to read 'Anthony Steel', written in a cursive style.

Signed Anthony Steel
9 June 2017