

Before Queenstown Lakes District Council

In the matter of The Resource Management Act 1991

And The Queenstown Lakes District proposed District Plan Topic 13
Queenstown Mapping

STATEMENT OF REBUTTAL EVIDENCE OF KENNETH FRANK GOUSMETT FOR

Jacks Point Residents and Owners Association (#1277)

Dated 07 July 2017

Solicitors

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**anderson
lloyd.**

QUALIFICATIONS AND EXPERIENCE

- 1 My name is Kenneth Frank Gousmett
- 2 I am a Director Cavell Heights Ltd, trading as Construction Management Services
- 3 My qualifications and Professional membership include:
 - (a) NZ Certificate of Engineering, Civil
 - (b) Registered Engineering Associate – REA
 - (c) Member of Water New Zealand (NZ Water and Waste)
- 4 I have been involved in wastewater, water supply and stormwater design and construction in the Queenstown Lakes District since the early 1970's, including:
 - (a) Wanaka Water and Wastewater, Hawea Wastewater, Albertown Water and Wastewater, Kelvin Heights Wastewater, Arrowtown Water and Wastewater, Queenstown and Wanaka Stormwater
 - (b) Development and Construction Manager for Millbrook Resort for 5 years from commencement through to the opening, responsible for construction of all infrastructure and buildings, landscape features and the golf course.
 - (c) Infrastructure manager for Jacks Point development since inception in the early 2000's. This includes onsite wastewater, stormwater management and the Coneburn water supply for 700 dwellings.
 - (d) I managed the new water supply and wastewater systems at Glendhu Bay Campground in the late 2000's and early 2010's.
 - (e) I have managed the concept design and consenting of the water supply, wastewater, stormwater, power supply and telecommunications for Parkins Bay Preserve since inception in the mid 2000's.
 - (f) I was Infrastructure Capital Works Manager and Acting GM Infrastructure for Queenstown Lakes District Council in the early 2010s.
- 5 In preparing this evidence I have reviewed:
 - (a) The reports and statements of evidence of other experts giving evidence relevant to my area of expertise, including:
 - (i) Evidence and appendices of Christopher Hansen dated 04 June 2017 on behalf of the Jardine Family Trust, Remarkables Station Ltd, and Homestead Bay Trustees Limited;

- (ii) Evidence of Ulrich Glasner dated 24 May 2017 on behalf of Queenstown Lakes District Council;
- (iii) Extracts from the section 42a report of Vicki Jones dated 24 May 2017 on behalf of Queenstown Lakes District Council.

SCOPE OF EVIDENCE

- 6 I have been asked by counsel for Jacks Point Residents and Owners Association to review the submission made by the Jardine Family Trust and Remarkables Station Limited (#715), particularly with regard to Infrastructure.

EXECUTIVE SUMMARY

- 7 In reviewing the evidence of others on Infrastructure and from my own knowledge I have identified several areas that will be of concern to Jacks Point Owners and Residents Association. These are:
- (a) Stormwater runoff from the urban development polluting the existing water intake for the Coneburn Water Supply.
 - (b) The lack of information on the effect of wastewater disposal onsite for the 715 dwellings proposed. The concerns related to the potential pollution of the Coneburn Water Supply intake and the implications of the total Nitrogen leaching to ground.
 - (c) The lack of information on the yield of the proposed bore water supply.
 - (d) The lack of consents from the Otago Regional Council to take water and to discharge wastewater to ground.

Infrastructure:

Stormwater

- 8 Coneburn Water Supply Ltd owns a large scale water supply that provides all drinking water, fire fighting supply and irrigation water for the Jacks Point development. There is a 500mm diameter lake intake pipeline that draws water from Lake Wakatipu to a shore based wet well, located in the centre of Homestead Bay. There are 4 submersible pumps in the wet well, two supplying the Jacks Point golf course irrigation (32 litres/sec each) and two supplying the Jacks Point development water supply and fire fighting with provision for the installation of a third pump (82 litres/sec each).
- 9 This is relevant because stormwater runoff from urban development has potential to pollute the lake shore area. There is no easy way to protect the

water supply if the lake water quality deteriorates from stormwater runoff caused by pollution/contamination from urban land development. The water supply intake must be protected from pollution by comprehensive stormwater design and operation. In particular stormwater pipeline and open channel discharges must be directed well away from the Coneburn Water Supply intake.

- 10 I expect that Coneburn Water Supply Ltd and the Jacks Point Owners and Residents Association will seek affected party status for the Homestead Bay stormwater consent application to the Otago Regional Council.

Wastewater

- 11 Lowe Environmental Impact Ltd have provided a Wastewater Treatment and Land Treatment Options Report. Unfortunately the value of this report is quite limited as the report considers just 130 of the 715 dwelling equivalents proposed. Not only will there be 450% more dwellings than covered by the report there will also be roads, reserves, parking, cycle and walkways, etc to service the dwellings, which will significantly reduce the undeveloped land area available for dispersal of treated wastewater. This has not been addressed. There is no indication that 715 dwellings can be serviced by on-site wastewater treatment and disposal.
- 12 I note that I have not seen the LEI Site Investigation Report that is referred to on page 15 of the LEI Options Report.
- 13 There are obvious risks of polluting the lake from sub surface runoff from a land treatment area that is located in close proximity, which is a real concern to Coneburn Water Supply Ltd and the Jacks Point Owners and Residents Association.
- 14 There are conditions in the Otago Regional Council consent 2009.312 held by Jacks Point Owners and Residents Association to discharge treated wastewater to ground that could be compromised or complicated by a further large scale consent as proposed for Homestead Bay. In particular consent condition 18 limits the total nitrogen leaching to ground.
- 15 It appears that no consent application has been lodged with the Otago Regional Council to discharge wastewater to ground, so there is no indication that a consent will be granted.
- 16 I expect that Coneburn Water Supply Ltd and the Jacks Point Owners and Residents Association will seek affected party status in the Homestead Bay wastewater consent application to the Otago Regional Council.

Water Supply

- 17 Early this year I gave evidence for Jacks Point entities on the Queenstown Lakes District proposed District Plan Topic 09 Resort Zones regarding water supply at Jacks Point.
- 18 A new water supply was constructed in 2006 to serve all of the Coneburn area (Hanley Downs, Jack's Point and Homestead Bay) and has been in continuous use since. The water supply system is owned by Coneburn Water Supply Ltd and is operated by Jacks Point Owners and Residents Association. The design capacity for Stage 1 of the water supply (which exists now) was for some 1500 dwelling equivalents. All of the existing water supply components were designed for an ultimate capacity at build out of 3090 dwelling equivalents with provision for capacity upgrades where necessary.
- 19 These planned upgrades will increase the capacity from some 1500 dwelling equivalents at present to 3090 dwelling equivalents on the land serviced by Jack's Point, and will still be within the existing Otago Regional Council consent to take water. The actual timing of each planned upgrade will be determined through analysis of recorded flows and the number of dwellings and dwelling equivalents as the planned upgrade thresholds approach.
- 20 I cover the risk of pollution of the Coneburn Water Supply intake under Stormwater.
- 21 The Coneburn Water Supply will not have sufficient capacity, even when upgraded as planned, to provide 86 litres/sec of water to Homestead Bay on peak days, as calculated by Christopher Hansen on page 12 of his evidence. Any request to supply a neighbouring property with water, which is suggested in Christopher Hansen's evidence, would require a commercial agreement with Coneburn Water Supply Ltd.
- 22 The preferred source of water for a supply is from a new 300mm diameter bore within the Homestead Bay property. From Christopher Hansen's evidence the test pumping should be complete by now so the results should be available for the hearing.
- 23 I consider it important to have confidence that a water supply source is proven available and key consents obtained for expansion of the zone to the scale proposed

Telecommunications and Power Supply

- 24 I have not seen any confirmation of power supply or telecommunication capacity from the relevant utility companies - Aurora Energy or Chorus NZ Ltd.

Jacks Point Owners and Residents Association will want assurance from the utility companies that there is adequate capacity available to serve the proposed development at Homestead Bay without limiting supply to the Jacks Point development.

Dated this 07th day of July 2017

Ken Gousmett