## Before Queenstown Lakes District Council

In the matter of The Resource Management Act 1991

And The Queenstown Lakes District proposed District Plan –

Rezoning Hearing Stream 13 - Queenstown Mapping

# STATEMENT OF EVIDENCE OF KEN GOUSMETT FOR

Gibbston Valley Station Ltd (#827)

Dated 12th June 2017

#### **Qualifications and Experience**

- 1 My name is Kenneth Frank Gousmett.
- 2 I am the Director of Cavell Heights Ltd, trading as Construction Management Services.
- 3 Qualifications and Professional membership
  - (a) NZ Certificate of Engineering, Civil
  - (b) Registered Engineering Associate REA
  - (c) Member of Water New Zealand (NZ Water and Waste)
- 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, Queenstown Water and Wastewater, Hawea Wastewater, Albertown Water and Wastewater, Kelvin Heights Water and Wastewater, Arrowtown Water and Wastewater, Queenstown and Wanaka Stormwater.
- b) Development and Construction Manager for Millbrook Resort for 5 years from commencement through 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.
- d) I managed the infrastructure concept design and consenting for the Gibbston Valley Station development that was consented in 2008, including water supply, wastewater, stormwater, power supply and telecommunications.
- e) I was Infrastructure Capital Works Manager (and Acting GM Infrastructure for one year) for the Queenstown Lakes District Council 2009 to 2013.
- 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 by Ulrich Glasner, Chief Engineer, Queenstown Lakes District Council, dated March 2017.
    - (ii) I am familiar with the proposed Gibbston Valley Station proposal and the relevant Queenstown Lakes District Council land use consents and the Otago Regional Council water and wastewater consents.
- I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. This evidence has been prepared in accordance with it and I agree to comply

with it. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

### Scope of Evidence

I have been asked by Gibbston Valley Station to prepare evidence in relation to infrastructure, being water supply, wastewater, stormwater, power supply and telecommunications for the eventual development of the land within the proposed Gibbston Valley Sub Zone, as described in the evidence of others.

### **Executive Summary**

There is adequate infrastructure planned and/or consented to serve Gibbston Valley Station as proposed in the Gibbston Valley Sub Zone Structure Plan.

#### Infrastructure

- 9 As with current services I am involved in for Gibbston Valley Station, all infrastructure will be designed and constructed to meet relevant NZ Standards and the 2015 QLDC Subdivision Code of Practice.
- 10 <u>Water Supply</u> As there is no municipal water supply at Gibbston it is necessary to utilise a local source. Two options have been investigated, it is expected that both will be utilised:
- 11 Tom's Creek - this runs through the centre of the Gibbston Valley Station property. Deemed Water Permit 4059VI, which expires in October 2021 is in the name of Gibbston Valley Station (GVS). There is an agreement with the landowner, Glenroy Station Ltd, for an easement from the DWP 4059 intake in the upper catchment to GVS property. DWP 4059VI is for 400,000 litres/hour or 111 litres/sec for irrigation purposes. However this quantity is shared with DWP 4031 which is held by Glenroy Station Ltd. Furthermore, the source is over allocated so this quantity has to be considered the maximum permitted take. Water Resources Otago Ltd was engaged in May 2008 to investigate the sustainable minimum flow that can be taken from Tom's Creek. The lowest recorded flow measured during the summer of 2007/08 was 22.3 litres/sec at the proposed intake site. A small intake structure would be needed in mid catchment of Tom's Creek to direct the flow into a pipeline. Water would be conveyed by gravity to the proposed domestic supply and irrigation reservoir on Gibbston Valley Station land. The advantage of this source is that no energy is required for pumping and there is an existing water permit. It is noted that a new consent to take water is required before DWP 4059 expires in 2021, it is intended to apply for a new consent in 2017. The water supply from Toms Creek will be adequate during the early stages of the Gibbston Valley Winery and Gibbston Valley Station projects. However this supply will not be adequate for all of the Gibbston Valley Station project.
- 12 <u>Kawarau River</u> this runs along the full length of the northern boundary of the Gibbston Valley Station property. The river carries a large flow even during low flow periods. The

flow is typically in the range of 200 to 300 cumecs. The Otago Regional Council Water Plan allows a maximum water take of 100 litres/sec or 1000 cubic metres per day as a permitted activity (rule 12.1.2.2). The Otago Regional Council (ORC) issued a water take and associated consents in 2008 – with a 5 year validity period. These consents have since been reissued by the ORC with a lapse date of 12 December 2018 – these are consents 13.430 and 13.431.

- 13 I consider that there are sufficient water resources available to serve the development opportunities provided by the zone proposal in a way that would not adversely affect the environment.
- <u>Wastewater</u> wastewater from all of the existing Gibbston Valley Winery development is treated on site and dispersed via sub surface irrigation emitters. There is no municipal wastewater system in Gibbston Valley. The Otago Regional Council (ORC) issued consent 14.012 to discharge treated wastewater to ground on-site. The consent expires in 2049. The ORC consent maximum rate of discharge is 42 cubic metres/day.
- The relatively new treatment and dispersal system (2016) is the same treatment and dispersal system as used at Jacks Point currently serving some 700 lots.
- The Otago Regional Council also granted consent 2008.283 to discharge treated wastewater to ground on-site for the consented Gibbston Valley Station development in 2009. The ORC consent maximum rate of discharge is 143 cubic metres/day. However this consent has lapsed and a renewal application is being prepared at present. The dispersal site is some 450m east of Toms Creek on the north side of SH6. It is intended to use the same dispersal site.
- 17 Through employing present wastewater management technology, and with the availability of suitable land for effluent disposal purposes, it is my opinion that wastewater from the development opportunities provided by the proposal can be satisfactorily managed on-site while avoiding adverse off-site effects.
- It is established practice that proposals for building consent and sometimes resource consent include a development-specific wastewater management solution that is assessed and approved at that time. From my review of all of the development activities that are provided for throughout the proposal and again, taking into account the areas of land available for wastewater management, wastewater can be satisfactory managed on-site while avoiding adverse off-site effects.
- 19 <u>Stormwater</u> All of the stormwater runoff from buildings, driveways and roads will be collected and piped to existing watercourses that pass through culverts under SH6, across the river terrace and then cascade over the rock cliffs into the Kawarau River.
- The existing grassed watercourses are ideal interceptors of silts and other suspended solids that may be carried during periods of heavy rain. Any channel improvements

necessary to contain flood flows will be addressed during detailed design. This approach has worked well for stormwater from the winery development, with Otago Regional Council consents where required under the ORC Water Plan.

21 <u>Power Supply and Telecommunications</u> – both Aurora Energy Ltd and Chorus Network Services Ltd confirmed by letters in 2008 that they could make an electricity supply/telecommunications available for the consented Gibbston Station Development. Updated letters will be sought from both utility companies for the zone and development changes.

#### Conclusion

I have reviewed the current planning, consents and design for water supply, wastewater, stormwater, power supply and telecommunications infrastructure to serve the zone and development and I am satisfied that this work is sufficiently advanced to be confident that adequate infrastructure will be available for the development as proposed in the Sub Zone Structure Plan.

## Dated this 12th day of June 2017

#### **Ken Gousmett**

### References:

- a) Otago Regional Council consent DWP4059VI to take water from Toms Creek.
- b) Otago Regional Council consent 13.430 and 13.431 to take water from the Kawarau River.
- Otago Regional Council consent 14.012.01, to discharge treated wastewater to ground for Gibbston Valley Winery.
- d) Otago Regional Council consent 2008.283, to discharge treated wastewater to ground for Gibbston Valley Station. This consent has lapsed and a renewal application is being prepared.
- e) Duffill Watts Consulting Group 2008 Soil Assessment and Assessment of Environmental Effects for the Discharge of Domestic Wastewater.