

30th June 2023

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Kosciuszko Thredbo Pty Ltd PO Box 92 THREDBO NSW 2625

Attention: Mr Euan Diver

Dear Euan

RE: THREDBO VILLAGE SEWAGE TREATMENT PLANT CAPACITY ASSESSMENT -**GOLF COURSE SUB-DIVISION**

Please find below our assessment of the impact of the proposed Golf Course Sub-division development on the capacity of the existing Thredbo Village sewage treatment plant (STP).

The existing Thredbo STP has been assessed previously as having a maximum treatment capacity of 1.500 kL/d, with a maximum BOD₅ loading of 500 kg/d.

Under the terms of the current Head Lease, Thredbo has a bed limit of 4,820 beds and a current undeployed bed number in the order of 464 beds. In order to realise the deployment of these beds, Kosciuszko Thredbo Pty Ltd (KT's) parent company EVT is in the process of planning the development of several areas in Thredbo, including several new sub-divisions. One such site is a proposed 19 Lot (186 bed) sub-division located on the current 1st Fairway of the Thredbo Golf Course.

The new sub-division will be connected to the existing Thredbo municipal infrastructure, including all utility services, except for the stormwater system, where new controlled discharge point(s) will be need to be installed to the Thredbo River. All existing services are located in and adjacent to Crackenback Drive.

Historical water usage based on bed capacity has been monitored at the Thredbo Resort for several decades. In recent years, KT has been monitoring the potable water usage at the Crackenback Ridge sub-divisions, which comprises 34 lots with 330 developed beds. These figures are shown in Table 1.

Table 1 – Potable water usage from Crackenback Ridge sub-divisions

Year	Average Winter Use (L/bed/day)	Maximum Winter Use (L/bed/day)
2022	96.44	194.12
2021	76.95	142.65
2020	166.24	215.69
2019	114.47	233.33
2018	135.95	260.29

As a comparison, data from other ski resorts at Mt Hotham and Falls Creek in Victoria indicate average potable water usage of 160 to 200 L/bed/day.

For the purposes of assessing the capacity of the Thredbo STP, the following per capita loadings will be used.

- Hydraulic load = 260 L/bed/day (maximum);
- Organic load = 60 g BOD₅/person/day (average note the average organic loading is relevant for capacity assessment of biological treatment systems);

To put the above loadings in perspective, the daily per capita loadings from domestic sewage catchments is typically 150 to 300 L /person/day for hydraulic loads and 60 to 70 g BOD₅/person/day for organic loads.

Hence, based on an additional 186 beds proposed for the Golf Course Sub-division, this equates to the following loading increases:

- Hydraulic load = 48.4 kL/d maximum
- Organic load = 11.2 kg BOD₅/d

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These additional loads represent 3.2% increase in the maximum hydraulic load and 2.2% of the maximum organic load into the Thredbo STP. These increases are considered minor and well within the treatment capacity of the plant.

Please contact me on 0400 170 584 if you have any queries.

Yours sincerely,

Zlatko Tonkovic **Managing Director**

Yabbie Pond Pty Ltd