

File: 1508141

July 19, 2021

Crystal Mountain Society
Galiano Island BC V0N 1P0

**Re: Second Addendum Letter on Estimated Water Supply Demands for
Crystal Mountain Rezoning Proposal, 2021**

As requested, Hy-Geo Consulting reviewed the estimated water supply demands for the above proposal on Galiano Island in June 2021. This letter replaces the previous estimated water supply demands outlined in the 2015 report titled, *Groundwater Assessment Report For Crystal Mountain Retreat Centre, Galiano Island* prepared by Hy-Geo Consulting and the subsequent revised estimates made March 18, 2021 (Kohut, 2021).

REVISED ESTIMATED WATER SUPPLY DEMAND JUNE 2021

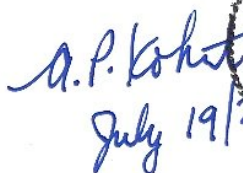

The proposed retreat centre development is being revised to be developed in two stages namely:

1. A *Primary Retreat Centre* to be serviced by the existing “Central Well”, and
2. A *Long Term Retreat Area* to be serviced by a future well to be drilled at the upper ridge location.

The Maximum Daily Demand (MDD) requirements for each stage are provided in Table 1 and 2 respectively. Total estimated demand for the *Primary Retreat Centre* has been reduced from 3252 litres/day to 2616 litres/day. Total estimated demand for the *Long Term Retreat Area* remains at 284 litres/day.

The largest potential use of water on any day would be for the washroom facilities including showers.

Respectfully submitted,


July 19/21


Alan P. Kohut PEng.
Principal and Senior Hydrogeologist

HY-GEO CONSULTING

Reference

Kohut, A. P, (2021) *Addendum Letter on Estimated Water Supply Demands for Crystal Mountain Rezoning Proposal, 2021*. Letter to Crystal Mountain Society dated March 18, 2021. Hy-Geo Consulting, Victoria, British Columbia.

Table 1. Estimated Water Requirements for Primary Retreat Centre, June 2021.

PRIMARY RETREAT CENTRE – Serviced by existing “Central Well”, lower plateau area				
Number of persons Served	Facilities Used	Period	Estimated MDD (litres/day)	Comments
2	Caretaker dwelling	Year round	700	Residential use
14	14 Meditation Huts (no plumbing)	May – Oct (100%) Nov-Apr (10%)	N/A	Sleeping / meditation use only
5	Tent sites	July – Aug (100%)	N/A	Sleeping / meditation use only
19	Main Kitchen, 3 meals/day/person	July – Aug (100%) May/June (70%) Sept/Oct (70%) Nov-Apr (10%)	285	Food preparation, dish washing, hand washing station, drinking water and limited toilet use ¹
19	Laundry (located in either kitchen or washroom)	July – Aug (100%) May/June (70%) Sept/Oct (70%) Nov-Apr (10%)	428	1 washer / dryer, periodic use ²
19	Shared Central Washroom	July – Aug (100%) May/June (70%) Sept/Oct (70%) Nov-Apr (10%)	1083	2 showers ^{3, 4} , 4 washbasins ⁴ , 2 toilets ⁵
8	Shared Central Washroom and Kitchen for additional day-use persons and teacher	July – Aug (100%) May/June (70%) Sept/Oct (70%) Nov-Apr (10%)	120	Food preparation, dish washing, hand washing station, drinking water and limited toilet use ¹
TOTAL			2616	

¹ based on 15 liters/day/person

² based on 45 liters/load and 50 % alternate day use

³ based on 50 liters/person and 50 % of guests with alternate day use

⁴ based on 20 liters/day/person

⁵ based on 12 liters/day/person

Table 2. Estimated Water Requirements for Long Term Retreat Area, June 2021.

LONG TERM RETREAT AREA – Serviced by future drilled well, upper ridge location				
Number of persons Served	Facilities Used	Period	Estimated MDD (litres/day)	Comments
3	3 Meditation Huts (no plumbing)	Year round	N/A	Sleeping / meditation use only
3	Shared Central Kitchen, 3 meals/day/person	Year round	45	Food preparation, dish washing, hand washing station, drinking water and limited toilet use ¹
3	Shared Central Laundry	Year round	68	1 washer / dryer, periodic use ²
3	Shared Central Washroom	Year round	171	1 showers ³ , 1 washbasin ⁴ , 1 toilet ⁵
TOTAL			284	

¹ based on 15 liters/day/person

² based on 45 liters/load and 50 % alternate day use

³ based on 50 liters/person and 50 % of guests with alternate day use

⁴ based on 20 liters/day/person

⁵ based on 12 liters/day/person

The largest potential use of water on any day would be for the washroom facilities including showers.