



EGBC Permit # 1001087

2025 04 03

File:1492-01

Daniel van Netten & Alayna Briemon  
1209 Lyall Street, Victoria BC

As required by the Township of Esquimalt, B4 Engineering Inc has been requested by the owners to estimate the Daily wastewater flow for Howl artisanal micro-brewery and tasting room operated by Daniel Van Netten and Alayna Briemon, located at 1209 Lyall St, Victoria BC

The artisan micro-brewery at this location has already been permitted by the Township of Esquimalt to produce up to 1800 litres of beer per week, this equates to 3 brew days each day with 300 litres of wastewater per brew day.

The tasting room will operate for a maximum of 40 hrs per week on various days, the number of visitors is estimated by the owners to be between 60-100 during operating hours. The restroom will be locked and available upon request. On any given opening day it is estimated that there will be a maximum of 20 visitors.

The tasting room will serve beer in glasses, a Moyer Diebel DF rotating glass dishwasher has been installed to wash the glasses, this unit is capable of washing 1200 glasses per hr with water consumption as per the manufacturer's specification sheet of 46 litres (10 imperial gallons) per hour. The dishwasher will be run an average of 1 hr per day on the busiest days.

The combined estimated daily flow for brewing, toilets and glasswasher is as follows:

- Brew days 300 litres per day 3 days per week
- Toilet usage 20 visitors per day at 1 use per visitor at 5/10 litres per use = 200 litres maximum
- Glass washer 46 litres per use 3-5 times a week

The residence the brewery is located in is a 2 bedroom house that has a daily design flow (DDF) of 1000 litres per day peak and an average daily flow of 500 litres per day.

The *average daily flow* over the course of 1 week for the residence and brewery would equate to 865 litres or 0.865 cubic metres.

The maximum calculated *daily flow* from the brewery operations and the tasting room is estimated to be 1546 litres or 1.546 cubic metres.

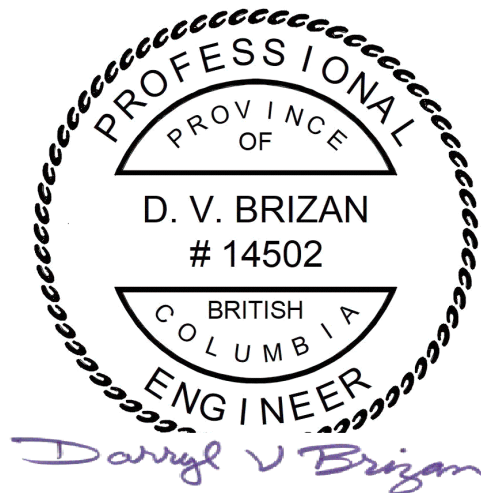
The above daily flows for the residence and toilet usage calculations have been estimated using tables and formulae from the BC Ministry of health Standard Practice Manual Version 3 table II-8 and table III-17. The brewery usage has been supplied by the owners and the glass washer usage has been taken from Moyer Diebels product specification sheets.

In summary the DDF for the residence and brewery operations is under the DDF for a 4 bedroom house which is 1600 litres per day. BC assessment shows there are homes within the same block that have 2 - 6 bedrooms, the brewery would have an average or slightly below average daily flow for the area.

Any questions or concerns or clarification please contact one of B4's team below.

Sincerely,

**B4 ENGINEERING INC.**  
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EGBC permit number 1001087



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