

Water Requirements - Silva Bay Restaurant			
General information	Size (Max)	2,400 sq. ft or 223 sq. m	
	Occupants (Max)	80	
Water estimator	Reference	WATER BENCHMARKING STUDY:RESTAURANTS AND MICROBREWERIES IN THE CITY OF VANCOUVER (AUGUST 2018)	
	Volume requirements for restaurant size (gallons/Sq. m./Day)	8	
	Volume requirements per occupant (gallons/Seat/Day)	23	
Water Requirements - Silva Bay Marina			
Water estimator	Reference	Data provided by Silva Bay & recorded by Arrowsmith Water. Current Marina set up is larger than the proposed new design, therefore water demand should not increase	
	Volume requirements based on average peak demand in June to September (gallons/day)	411.0	
Water Requirements - Silva Bay Resort (including Hotel & Main Floor Lounge, Cabins and Employee Housing)			
General information	Hotel Room Size	400 sq. ft or 37 sq. m	
	Cabin Size	700 sq. ft or 65 sq. m	
Water estimator for Cabins or Employee Housing	Reference	Honey-Rosés, J., Gill, D., Pareja, C. 2016. BC Municipal Water Survey 2016. Water Planning Lab. School of Community and Regional Planning, University of British Columbia. Online URL: http://hdl.handle.net/2429/57077	
	Volume requirements per capita (gallons/day)	82	
Water estimator for Hotel Room	Reference	Colorado Water Wise and Seattle Public Utilities resource Conservation Section	
	Volume requirements based on average water use for Economy to Deluxe Resort room type (gallons/day, room)*	116	
Water Requirements - Silva Bay Resort (Landscaping) ^{1A}			
General information	Terraced Area	6,800 sq. ft or 0.2 acre	
	Property Size	18,870 sq. m or 4.7 acre	
Water estimator for Landscaping (173-day Irrigation Season from April 23 to October 2)	Reference	http://www.bcaagriculturewatercalculator.ca	
	Volume requirements for growing grass over terraced area (gallons and gallons/day)	71,071	380
	Volume requirements for growing grass over property area (gallons/day)	1,539,331	8,898
Water Requirements - Silva Bay Resort (Fire Suppression) ^{1AA}			
General information	Maximum Capacity (gallons)	30,000	
	Flow rate required (gallons/minute)	400	
	Fire Suppression duration (minutes)	75	

Notes: * indicates the volume of water required for all hotel uses (domestic, kitchen, laundry); ¹ indicates that water requirements are seasonal; ^{^^} indicates a one-time water requirement

WATER CALCULATOR			
WATER USE TYPE	UNIT NUMBER	VOLUME (gallons/day)	FLOW RATE (gallons/minute)
Restaurant (Based on number of Seats) ¹	100	2300.94	1.60
Restaurant (Based on sq.m) ¹	0	0.00	0.00
Hotel (gallons/day, room)	16	1856.00	1.29
Cabins (Based on Occupants) ¹¹		0.00	0.00
Employee Housing (Based on Occupants)		0.00	0.00
Irrigation (173-day season)	-	400.00	0.28
Marina (Average Peak Season Value)	-	411.00	0.29
TOTAL		4967.9	3.4

Notes: ¹ means do not fill both Restaurant Tabs; ¹¹ assume 4 occupants per cabin

	INPUT VALUE
	CONSTANT VALUE
	CALCULATED VALUE