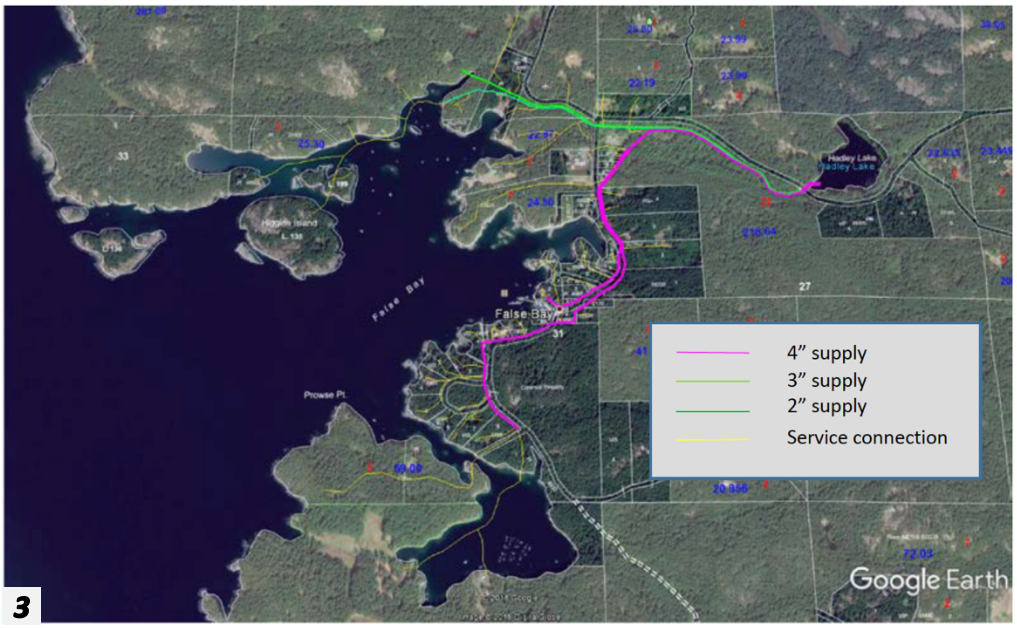
Pete's Lake Water System



First installed in 1965 by the Lasqueti Land Company, the water system has been owned and operated by the Pete's Lake Water Users Society since 1989. It is operated under Water License #72113 and Operating Permit #1310938. There are currently 78 water connections for our 71 members. The source of the water is Hadley Lake, also known as Pete's Lake, from which water is obtained through two 4-inch inlet pipes supported by a raft (Figure1). The intake pipes run under the road and into a manifold (Figure 2) from which one 4-inch and one 3-inch line distribute water to our community (Figure 3).

A BOIL WATER ADVISORY IS IN EFFECT.
As a member of the Pete's Lake Water Users' Society, you are responsible to ensure that guests and users of water in your household are informed of this Boil Water Advisory.

At this time, the water is not treated before distribution. The system is operating in violation of its operating permit, which requires that the water delivered to users is potable. Island Health is becoming impatient.

Testing of the water over the last 10 years has often shown high levels of contamination in the water, and possibly a trend towards more frequent and higher bacterial counts.

Prepared for Pete's Lake Water Users' Society
by Trudi Smith BSc MSc (Food Science, UBC)
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How we know there is a problem:
E. coli is used as an "indicator organism" for water testing because it is relatively easy and inexpensive to assess. It grows only in the intestines of humans, animals and birds. Presence of E. coli in the water is an indication of fecal contamination, either from the source water, or from somewhere within the distribution system. If E. coli is present in the water, there is a high probability that parasites, viruses and other bacteria are also present.

The bad news:
Water is sampled monthly from several locations along the distribution lines and sent off to an official laboratory for microbial analysis. ***In 2018, over 50% of our water samples showed presence of E. coli, and almost 20% showed such high levels of E. coli contamination that the laboratory was unable to provide an accurate count of the bacteria*** (noted as "overgrowth").

The better news:
According to the survey done in 2014, about 65% of our members treated their water to a standard that was safe from parasites and bacteria. Only 15 to 20% of users treated their water sufficiently to remove viruses as well. Hopefully these numbers have increased in the 4½ years since then.

What we need to do right away:

P **Post** "Do Not Drink" signs at every water outlet on your property that provides untreated water.

L **Let** everyone – family, other residents, friends and visitors – know which water sources have been made safe to drink and which have not.

W **Water** for drinking, brushing teeth, washing fruits and vegetables, cooking, washing dishes, and cleaning wounds must be fully treated.

U **Upgrade** your water treatment system and/or ***boil all water for one full minute before use***.

S **Supply** emergency store of water to meet your household's needs for at least 2 days in the event of water shutdowns.

What we need to do before year end:

As a society, we need to decide on our path forward. How are we going to ensure that all members of our PLWUS community have access to safe water? How are we also going to meet needs that may not require potable water, such as watering, irrigation, and fire safety? How are we going to meet the legal requirements of water distribution?

Coming soon:
Drinking Water Safety Part 6: Making Water Safe to Drink

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