

Pete's Lake Water Users Society

Water Quality Implementation Plan

Revised October 2014

Lasqueti Island, BC

Contents

1. Work Done to Date December 2009 to present	3
2. Applying for Study Funding July 2014 to December 2014	3
3. Acquiring/Purchasing Equipment and Hiring/Training Staff January 2015 to April 2015.....	3
4. Studying Source Water Quality and System Operational Characteristics May 2015 to April 2016	3
5. Assessing Potential Treatment/Disinfection Options April 2016 to August 2016 ..	4
6. Choosing a Final Disinfection/Treatment System August 2016 to December 2016	4
7. Obtaining a Construction Permit from the VIHA Public Health Engineer January 2017 to August 2017	4
8. Determining Funding Options for Implementation September 2017 to June 2018.	4
9. Construction and Installation July 2018 to December 2018	4
10. Cautionary Note	4

1. Work Done to Date *December 2009 to present*

- There have been continuing discussions with VIHA with regard to funding options, testing requirements, treatment/disinfection options, legal requirements and technical restrictions.
- The Society purchased boil water advisory signs for public display and boil water advisory stickers for use at various “point of use” locations in members’ homes.
- The Society has joined the Coastal Water Suppliers Association in order to learn from others’ experiences.
- The Society has formed three committees: Technical, Legal and Applications, in order to deal with the application, design and construction of the upgrades to the system.
- The Society has been mapping the water system piping in anticipation of studying and measuring water flows and pressures
- The Society’s maintenance contractor attended a water system training seminar
- The Society performed a water usage analysis in order to begin the testing of water purification alternatives
- The Society has contacted water system experts on Lasqueti and on Vancouver Island in order to enlist expertise and assistance when required.
- The Society has purchased liability insurance for both the Society and the Directors

2. Applying for Study Funding *July 2014 to December 2014*

The society is in the process of applying to the Local Government Infrastructure Planning Grant Program in order to obtain the necessary funds to properly study and assess the entire pipeline system, its water quality, and the flow rates, pressure drops and restrictions in the system. The next round of funding closes this fall and it is estimated that the approval process will take a few more months.

3. Acquiring/Purchasing Equipment and Hiring/Training Staff *January 2015 to April 2015*

This phase will include purchasing the necessary monitoring and measurement equipment and meters and then installing the equipment on the system as well as interviewing, hiring and training consultants (with IPGP funding) and other staff in order to begin the next phase.

4. Studying Source Water Quality and System Operational Characteristics *May 2015 to April 2016*

The Society plans to conduct an extensive sampling, study and research program so as to properly determine how the system works, what its weak points and restrictions are, the water quality from season to season and year to year, and how best to proceed in system modification design and construction. Annual rainfall and seasonal temperature trends have varied so much in recent years that a full year of observation will be needed to

obtain an accurate picture. This will include monitoring, recording and analyzing the information, data and results.

5. *Assessing Potential Treatment/Disinfection Options* April 2016 to August 2016

Once the Study Program is complete, the results will be analyzed and reviewed by the Society, (using its consultants), and then meetings will be held with Society members and the committees in order to explain the various methods for improvement by outlining advantages and disadvantages of each option as well as cost implications.

6. *Choosing a Final Disinfection/Treatment System* August 2016 to December 2016

In conjunction with VIHA and the Society consultants and committees, a final decision will be made by all Society members through a series of meetings, workshops and forums as to the disinfection/treatment option best suited to the Pete's Lake System and its unique restrictions.

7. *Obtaining a Construction Permit from the VIHA Public Health Engineer* January 2017 to August 2017

It is anticipated that this will entail discussion and negotiation and therefore will take several months.

8. *Determining Funding Options for Implementation* September 2017 to June 2018

After the Construction Permit has been received from VIHA, the Society will begin sourcing and applying for the necessary funding in order to purchase and install the required equipment.

9. *Construction and Installation* July 2018 to December 2018

Given the volunteer nature of the Society, this will probably take a few months based on staff and member availability.

10. *Cautionary Note*

Given the unique circumstances under which the Society operates – very limited funds and no electricity – this Plan is dependent on finding a water purification option that will operate with no electricity and will be a low – cost solution acceptable to its members. Without funding and/or a no-electricity option, the proposed schedule in this document may not be met.