

## Water Trustee Report

August 10<sup>th</sup>, 2021

I want to open by thanking all the water team volunteers for their hard work and diligence in making sure all the Water task requirements are met.

From the taking of water samples, purchasing supplies, filling the chlorine tank, recording the daily water consumption, operating and testing the generators, checking the Piers vault and undersea lines and many other day to day jobs, the team ensures all the tasks are completed.

Hats off to Phillipa, Katie, Velvet, Ming, Gary G, Garth, Cam, Ander, Colin, Barry T, and numerous others that provide support as needed. We continue to call on Bob and Maureen as advisors to assist when needed.

Maureen completed the playbook and provided numerous documents to keep us informed on all the procedures required to maintain the Piers Island Water system at a very high standard. There are over 40 tasks that need to be completed to ensure the system remains safe and operational.

We have completed two binders that outline each procedure. We hope to have a Water Team meeting in September once everyone returns from vacation or travel. These binders will be left in PH#1 and #2 once approved by the team.

### **Infrastructure & Equipment**

Much of our infrastructure is aging and in need of replacement or repair. In the last few months unexpected equipment failures have taxed our resources. Recently the Pressure Reduction Valve in Pump House #1 failed. It is 45+ years old and needs to be replaced. The flow meter in PH#2 is vibrating and needs replacement.

The latest casualty is the Standpipe at the Fire Hall. Thanks to the help of Barry T, Gary G, and Colin R we were able to determine that the Tee Head was compromised and no longer turned ¼ turn to the on position. Fortunately, it broke in the off position.

Next was breaking up the concrete and digging down to unearth the piping. We are thankful Allan & Brian W had all the big equipment needed to accomplish the task. A Tractor, Concrete drill and heavy hand tools were used to dig through rock and dirt. After four hours of digging, we located the connections around the 5' mark.

We received some good information from Bob Crooks and Robert Noble on what type of parts were installed. We were able to remove a metal cover and stem to determine cause of break down. It appears there are several factors, which range from using dissimilar metals, inadequate stem to Turn tee, incorrect key used to turn tee off and on and rusting of pipes.

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This standpipe is critical for the Fire Department, and it is imperative we complete this repair or replacement as quickly as possible. The standpipe was installed in 1993.



Extension metal bar that key was opening  
Disimilar metals corroded connection



Metal shroud over Gate Valve. Metal  
extension fit inside tube and corroded.

### **Next Steps**

After checking other standpipes with a camera, we noted that the Tee Heads on several other Standpipes will soon need repair or replacement. There are potentially 20 Standpipes that may require service and repair. This is a project that will require construction equipment to complete the digging and refilling and covering area with a concrete pad.

If the work is only related to maintenance and replacing aging parts a permit or Licensed Plumber may not be required. Where possible we would like to hire Islanders with equipment on Island to complete the work.

***We always need extra hands to help to keep the system going and to keep the costs of operations low. If you have skills in plumbing, water system repairs, small engine repair, equipment to help dig up water lines and piping, or want to help in any capacity, the water team could use your help.***

*If anyone knows a reliable licensed plumber that is available to complete some of the work required, please let me know. Due to the building/construction boom it is*

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*difficult to find a licenced plumber that can come on short notice to complete repairs.*

### **Deconstruction of Wood Stave Tank**

An RFP was completed, and we received interest from four parties. Only two submitted proposals, one internal and one external. Both were provided on site visits and expectations regarding salvage of materials and removal of waste.

### **SCOPE OF WORK**

#### Option One:

- Dismantle water tank on site
- Barge and remove all materials from site.

#### Option Two:

- Dismantle water tank on site
- Separate material that must be removed from site. Asphalt roof, aluminum ladder, steel rods and other miscellaneous items as determined.
- Items to be considered to remain on site for recycling by Piers Island: Yellow Cedar planks, creosote beams and concrete base (if there is interest).

We had two bids and two prices. Trustees went with the lowest bid as we were satisfied with the proposed approach, commitment, schedule and price.

DL Bins Ltd. owned and operated by David Laing was the successful contractor. His proposal for Option 1 was \$11, 510 with an estimate of two days work. Option 2 was for \$15,920 with an estimate on 4-5 days work. The Trustees have chosen option 2.

Over 15 Islanders have expressed interest in salvaging the wood. We hope to recover the additional cost of \$4410.00 through an auction or sales. In addition to the 161 wall pieces of yellow cedar there are also numerous yellow cedar floorboards that will be hopefully salvaged.

*Long time Islander Ken Gibbard wrote, "Do you know about the Bateman Gallery "One Tree" projects and displays. If not, then I can brief you. Basically, they get a single large tree and distribute pieces of it to about 40 artists. The artists then produce works of art which are displayed with a catalogue and for sale at the gallery. Similarly, each person getting some of the tower wood could be asked to let you know what they plan to do with the wood. The list could then be printed on the Piers Island website, and I am sure would be of interest to islanders."*

I think this is a great idea and I hope all Islanders that receive the wood contribute a photograph and short explanation on what they created.

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In July 2021 it became apparent that the wood tank was rapidly shrinking and the metal bands around the tank were slipping down. This was causing a safety concern and David Laing conducted an additional site visit to determine next steps. This accelerated the timeline to demolish the tank. Demolition will start on August 18th. (Work Safe B.C. and Insurance documents have been obtained from DL Bins Ltd.)

Fire Chief, Steve Cruise visited the site and provided advice on how to prepare the site and fire watch requirements during demolition.

***To ensure no one is injured and to ensure compliance with Work Safe B.C. Safety requirements the Water Tower Site will be closed off during the demolition. Everyone on site will be required to wear full PPE. Photographs will be taken and posted for Islander viewing.***

### **Water Maintenance & Procedures**

Water Quality remains high. We are fortunate and to have a team of experts that maintain it to that level.

I recently attended the BCWWA Small Water System Operators Conference by Zoom on June 29<sup>th</sup> and 30<sup>th</sup>. The Conference was specifically designed for the Northern and Southern Gulf Islands. It became clear how fortunate Piers Island is to receive world class quality water from the CRD.

During group discussions many Directors expressed concern and frustration when having to deal with wells, ponds, streams, and other water systems that required additional methods to treat their drinking water. Many of the Islands have very limited water supply and frequently commented on the cost to maintain their systems. All have water restrictions in place.

The Water Team has noted that our Chlorine use has escalated to keep up with the growing demand for more water. In July, we recorded several days where **single day use exceeded 32,000 Imperial Gallons.**

In December 2006 a Report by the PIID Water Advisory Committee was completed for Piers Island Improvement District. A general review was completed in preparation for the work programs undertaken by the committee. Government, District and Trustee files further facilitated assessment of the Piers Island water system and past work undertaken by the District. Where files and data were not available, individual assessment, field surveys and as-built information was obtained where practicable.

Of interest is the water consumption noted: *Annual average water consumption is in the order of 2.6 million gallons per year (11,720 m<sup>3</sup>/year), **with maximum daily consumption of around 23,000 IG (105 m<sup>3</sup> day).** (The maximum use for one day in 2006, was 27,660 I.G on July 22.).*

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I would like to remind all Piers Island Residents on the importance of ensuring they conserve water as much as possible. With the growing number of Islanders living on the Island, full time and part-timers spending more time here due to COVID, we are consuming more water.

### Routine Maintenance Procedures

- Weekly Water Tests
- Visual Inspections of New Tank and Pumphouses
- Generator Maintenance
- Visual checks of Undersea lines and Piers Vault

Monique Joubarne, Water Trustee