Water System Report – September 26, 2023

John de Jong – Trustee Assigned to Water System Oversight

As Trustee assigned to oversee the Water System Portfolio since our AGM the past June I have spent considerable time learning about the system, the volunteers who provide the service, and the management of the entire operation. Of significance is the addition of Gary Cooney who was appointed as the Water System Manager, whom I have worked closely with since June. His professional approach to the operation and dedication to our community and the members of his team can only give Piersian the comfort of knowing that our water system is in good hands. This new position will provide continuity in managing the system going forward.

Gary and I work well together, touching base weekly and touring all of our facilities monthly. Being able to work with Gary as manager has given me a new appreciation of the management and organizational work the previous Trustee, Monique Joubarne, did without a manager to assist her for the past three years and we thank her for that.

Following is a report prepared by Gary Cooney

Monthly Activities:

May

- Bi-annual water meter readings: Compared against same period last year and advised 4 owners of higher consumption over same period as last year. Six team members assisted.
- One team meeting in May and have implemented a water team operations slack workspace for team members for open and ongoing communication.
    - There are 11 team members and 5 associates.
    - Next planned meeting October 17.
- Orchard water leak determined and repaired. One team member assisted.

June

- Annual Watermain Flushing: After North Saanich completed the Piers Road watermain flush, we flushed our undersea water lines, and then our Watermain. Eight team members assisted. Detected undersea water line flush gate valve leaking.
    - One gate valve replaced at PH1 used for undersea line flushing. Three team members assisted and one associate.

July

- R123 reported a significant water leak that they fixed.
- Ongoing work on our Emergency Response Plan.

August:

- Worked on incorporating edits on the Emergency Response Plan.

September:

- Lighting struck a tree at R10 compromising several residents and Pump House (PH1) where a number of electrical components were compromised. This incident, not previously experienced, presented unique electrical and procedural challenges that requires a new SOG to be added to the Emergency Response Plan and new operating procedures to be developed.
- **Lightening Strike Review:**
    - The lightning strike caused a power surge/spike that compromised 3 power poles and 2 transformers resulting in a power outage at PH1. Until power was back on two team members used the bypass valve at PH1 to manually fill the water tank. Once power was restored it was determined that the tank float control system was compromised. With the assistance of two associates, a certified electrician, and two team members the compromised components were located, repairs and new components related to the tank float control panels in PH1 and PH2 were replaced. Components replaced:
        - Lightening strike repairs and new components replaced. PH1 - transformer and diode, PH 2 - cube relay switch and UPS fuse.
    - The repair took about one week to complete as some parts had to be sourced. Within the first day team members became aware that the water tank level had become low as the automatic system at PH1 had been disabled due to the strike. The bypass valve was used to allow the tank to be filled and replenished with fresh water from North Saanich. Due to the amount of water being replenished the tank was filled manually in increments, closely monitored by team members, thereby allowing our chlorination system time to catch up to our desired levels.
    - The system was operated manually until such time the repairs allowed it to revert to its automated status.
    - A new SOG will be added to the Emergency Response Plan and new operating procedures will be written to ensure the tank is filled in increments when a low water level is detected.
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- Worked on incorporating edits on the Emergency Response Plan.

Near Term Infrastructure Repairs

- Air valve at R100, Curb stops at R113 & R139 and Flow meter at PH2.

Planning for the Future - Infrastructure:

- **System Upgrades/Replacement/Ongoing Studies**
- Look into the advantages of having a direct watermain from PH1 to PH2. Presently water enters PH1, circulates completely around the island to reach the Water Tank.
    - Look into upgrading the Tank Float to a pressure-based system in PH2 that would eliminate the water control system in PH1 should a direct line be installed..

- Watermain, standpipes and corporate valve replacement.
- Undersea water line replacement.

Other items being worked on:

- Conversion of paper records and documents into electronic formats using Google Sheets for collection and management of information for team data entry that can be shared and viewed by all team members.
- Capital Assets: review and update budget numbers for October.
- Repair Kits: Inventory and replace spare parts as required.
    - Spare curb stops, spare back flow preventors, spare air valve kit, spare parts for watermain break.
- Chlorine/Chloramine Analysis – Take samples on a quarterly basis to determine the chlorine/chloramine interaction and how the chlorine is distributed throughout the system without a direct watermain to PH2.
- Scheduled Fall activities:
    - Annual Chlorination system service in early October.
    - VIHA Drinking Water Officer onsite Inspection.
    - Curb stop replacement at R113 and R139.
    - PH2 flow meter replacement.
    - Air valve replacement at R100.

As you can see by this report, the work being done by Gary and his team is expansive, handled professionally, and goes without saying, much appreciated.

Respectfully Submitted

John de Jong
Trustee