

Ships Point Improvement District

Water Technical Report 2019

(note : this report is for the operational period of 2019 and does not reflect the last 9 months)

Operations :

In the past year the SPID water system has operated as designed .The automatic chlorinator has operated within the specified ranges of VIHA and the back up generator has initiated automatically during the several BC Hydro interruptions that we have had this year .The constant pressure system has provided consistent pressure even when there has been large withdrawals for fire practice sessions.

To manage the water system we have the water operator Dave Shepherd supported by water tech volunteer water operator Mike Mesford. SPID also has a Water Technical Committee (WTC) comprised of the two water operators , SPID board members Jackie Ainsworth ,Kevin Gardave, Jim Wahl and Bill Trussler and non board members Bruce Prested , Dave Henderson and Brad Shuya. Membership on the WTC is open to SP residents that are interested .

The WTC meets once a month to review the operating performance and issues of the SPID water system . Dave Shepherd prepares a standard report each month that he presents to the WTC for discussion and analysis . (typical information from the report can be found in the Water Operator report).. If there is someone that is very interested they can ask Nina for an application to join the WTC.

The WTC develops work and action plans based on issues raised at the WTC meetings .The review and resulting action plans are presented at the SPID at the monthly meeting as are any capital or large maintenance requests where SPID board approval is required .

For a variety of reasons , including reduced operation and capital costs, SPID opted for a water system without major storage .The quality of the raw water entering the SPID system is good but under the regulations of VIHA we are required to chlorinate .Without major storage , robust just in time chlorination is required . To manage the chlorination an automatic monitor has been installed and if there is an issue the water operator is notified immediately via telephone. The water operators think that the system only has problems in the middle of the night but that has not prevented them from responding

As the water system is relatively complex we continue to have maintenance issues that our operators continue to resolve. We have had issues with the level gauges and the chlorination unit. The chlorination unit is critical but there is redundancy in the unit .

Water System Capital Project: Phase III

About a decade ago it was accepted by the SPID board and the residents that the SPID water system was in need of upgrading .The pumping system was an ad hoc installation and was prone to problems . There had been a boil water alert and VIHA wanted a chlorination system installed .The asbestos cement pipes were deteriorating and an engineering test of some removed sections revealed that there was very little useful life left in the several kilometers of pipe in the system .The connections to the main pipe from the residents homes were failing at a rate of one or two a year .There were several long sections of single dead end pipe that VIHA wanted changed to a loop structure to mitigate contamination . Flows for fire protection were not sufficient to meet insurance requirements due to some existing undersized pipes and the lack of the loop structure .

Studies were done, estimates were completed, meetings were held with residents and a final meeting was held with residents who agreed to a multi year total upgrade of the system . An overall budget involving a yearly increasing capital levy was agreed to by the residents and the project was started .

Phase I consisted of a new well, new pumphouse, new variable speed pumps ,a digital controller , a back up generator with automatic start on hydro fail , new piping from the pump house to the junction of SPR and Tozer and a crossover loop from Tozer to Vivian.

Phase II consisted of all new 150mm delivery pipe for Tozer, Michaels Place ,south section of Baynes ,Park Road ,SPR from Tozer to Baynes and the cross over loop from Tozer to Wenté Way. The project also include the installation of new meter setters, back check valves and shutoff valves for each lot .

Phase III will be similar to Phase II and will include new main pipe to replace the remaining existing pipe on SPR, Baynes south, Vivian, Victor and Wenté Way . There will be no crossover loops included in this work as there are none left to do. It will include a meter setter ,backflow preventer and shut off valve for every lot .

In early 2019 the SPID board evaluated the SPID capital position and decided that it was sufficiently robust to proceed with Phase III. The position would be re-evaluated when the final construction costs were available in the 1st quarter of 2020. SPID continues to look for external sources of capital but it does not look hopeful particularly as the Provincial Government of BC prevents Improvement Districts from participating in grant programmes like the gas tax rebate from the federal government and does not allow IDs access to provincial capital funds

The Ministry of Transportation and Infrastructure has been notified of our plans and we will be in discussion with them to determine what synergisms there may be if any with any of their upgrading plans.

As the value of the consulting contract was estimated over \$50K a tender document was prepared or the design, tendering and contract management . The RFQs were sent out in Q2-19 to 5 engineering

consultants and 2 replied .Their quotations were within 5 % indicating that the submissions were competitive .

A review committee consisting of members of the Water Technical Committee and the SPID board conducted a comprehensive evaluation based on predetermined criteria of the 2 candidates .The successful consultant was ISL Engineering from Victoria with a bid of \$95,000. Although this was the lowest bid it was the winning proposal based on other criteria as well as cost .

The contract was given to ISL in Q3-19 .After several reviews and revisions the almost final design was completed in November .All the Ships Point residents were invited to review and comment on the design at an open house in the SPID office in December . All the comments and suggestions from that open house were reviewed and changes were made where required .

ISL will prepare a contract package for tender in Q1-20. The project will be tendered and contractor chosen in Q1 -20 . Construction will start in Q2-20 with completion in Q3-20. And of course there will be no problems.

As this is a construction project none of these dates are cast in stone. As SPID did in the last project we will keep up an active communication with residents with several board members comprising a Public Liaison Team (PLT) ,the SPID web page , hard copy notices and the smiling face of our very friendly water operator Dave Shepherd . We appreciated the understanding of the residents during the last construction period and look forward to a similar relationship in the next and last phase.

With the end of Phase III SPID will have made significant investments in the water infrastructure of Ships Point . This investment will have been required to meet the water quality required by VIHA, the flow requirements of the fire insurance underwriters, the upgrading of the pipe and the availability expectations of the residents . In addition we have improved our operational capability by developing standardised Operation Guidelines for our operators ,by supporting training of our operators and by holding monthly reviews of the water operation .SPID has a water distribution and management system that the residents should be proud of and have confidence in .

We do have a large remaining challenge

The SPID water system is very dependent on the supplying aquifers. These in turn are very dependent on the recharge watersheds . Protection of the watersheds should be the responsibility of the MOE and FLNRORD—two ministries that have been missing in action wrt watersheds . The recently enacted Water Sustainability Act was intended to improve the situation by moving responsibility to more local governments but the underlying regulations were never developed . It has been left to local volunteer organisations to fill the void left by the provincial government .

There have been several not for profit organisations that have developed on the island to protect watersheds but none in our area until recently . The Beaufort Watershed Stewards was formed within the last several years and is now a registered official organisation of local volunteers committed to the protection of our watershed .There are several Ships Point residents including some board members on

the BWS .SPID has provided financial support to the BWS as it is a small investment to protect the large investment that SPID has in the water distribution system . We encourage all residents to support the BWS as it is crucial that we protect the water source for the Ships Point water system to ensure the long term availability of potable water for the residents of Ships Point

The SPID water supply is certainly adequate in terms of quality and quantity but we as residents need to use it wisely . SPID will provide watering recommendations as the conditions change in the Comox Valley . If you suspect a leak in your service connection or in the larger system please call the office. SPID is appreciative of the conservation efforts of the residents and look forward to continued cooperation to protect this valuable asset

Bill Trussler SPID Trustee

Chair of the Water Technical Committee

