Scott Point Waterworks District

Annual General Meeting 2017

Report of the Chair – Calendar Year 2016

Summary

2016 was a simpler year in terms of operations with fewer problems experienced. While rainfall was limited in summer 2016, it was not the drought of 2015 and our wells responded as expected, despite a substantial leak in July.

We also made substantial progress in our understanding of system changes that will allow us to address the disinfectant by-products present in the water. Please refer to the report from Nigel.

I would like to thank my two other trustees for their hard work and time as we navigated these waters. I particularly want to thank Gill Hobbs who is stepping down as Trustee and Financial Officer after 6 years of excellent management of the District's money affairs.

Operations

There were a few leaks in the system in 2016, but only one major one. In July, a tree root surrounding the water main squeezed to the point of cracking the concrete pipe. It was troublesome as locating it took over a week of probing and digging before repairs were made with a bolt-on sleeve. Of bigger concern is the number of large trees adjacent to the water main that are all potential future problems.

That said, the water main continues to appear to be in good shape with little evidence of deterioration of the concrete matrix in the locations where it has been exposed.

Concerns do remain about the condition of the service lines between the water main and the water meters. During the work to find the leak in July, two connections were found to be suspect and were replaced in 2016.

There were a few small leaks reported by individual residents. Residents are reminded that damaged lines from valve to the house, old toilets, and automatic irrigation systems have an increased probability of being a source of leakage.

Other than the July leak, the only other major non-routine maintenance in 2016 was the replacement of the well pump at Well 3 and cleaning of the well screen.

The storage tank has a small leak at a bolted seam. The leakage rate increased during the cold weather over winter and repairs are scheduled in spring 2017.

Government Regulation

After a couple of years of uncertainty, the Province passed the regulations necessary to put into effect the Water Sustainability Act - replacing the Water Act. The main impact of the new Act on the District is the requirement to obtain a license and pay an annual fee for groundwater removal. The District applied for the required license in early 2016 and the application seems to be slowly winding its way through the bureaucracy. The District remains concerned about earlier warnings about seawater intrusion into Well 1, which may impact our license application. The District and its groundwater consultant, GW Solutions of Nanaimo, continue to work with the Ministry to educate them about the background behind the seawater intrusion and the unique geography of Scott Point.

Treatment for THMs

We have been reporting for several years about the presence tri-halomethane (THM) disinfectant by-products (DBP) in the District water and were put on notice by Island Health in 2015. With assistance of MSR Solutions, we now have adequate information and a plan to deal with them. The essence of the plan (called Project Blend) is to treat Well 4 water through the Reverse Osmosis plant at Well 1. This will be accomplished by:

- Connection of Well 4 to the RO plant at Well 1 though a new 2 inch PVC pipeline installed in the road allowance along Scott Point Drive.
- Reconfiguration of pre-RO treatment at Well 4 and Well 1 to accommodate streams from both wells.
- Replacement of the two 5,000 gallon tanks at well 1 with smaller PVC tanks better suited for the requirement and to meet seismic requirements.
- Installation of flow meters and control valves at Wells 1 and 4 to reduce well pumping rate and limit seawater intrusion
- Replacement of RO plant membranes and addition of re-circulation loop to improve efficiency

A separate report on project planning for Project Blend is provided.

Other Operation Items

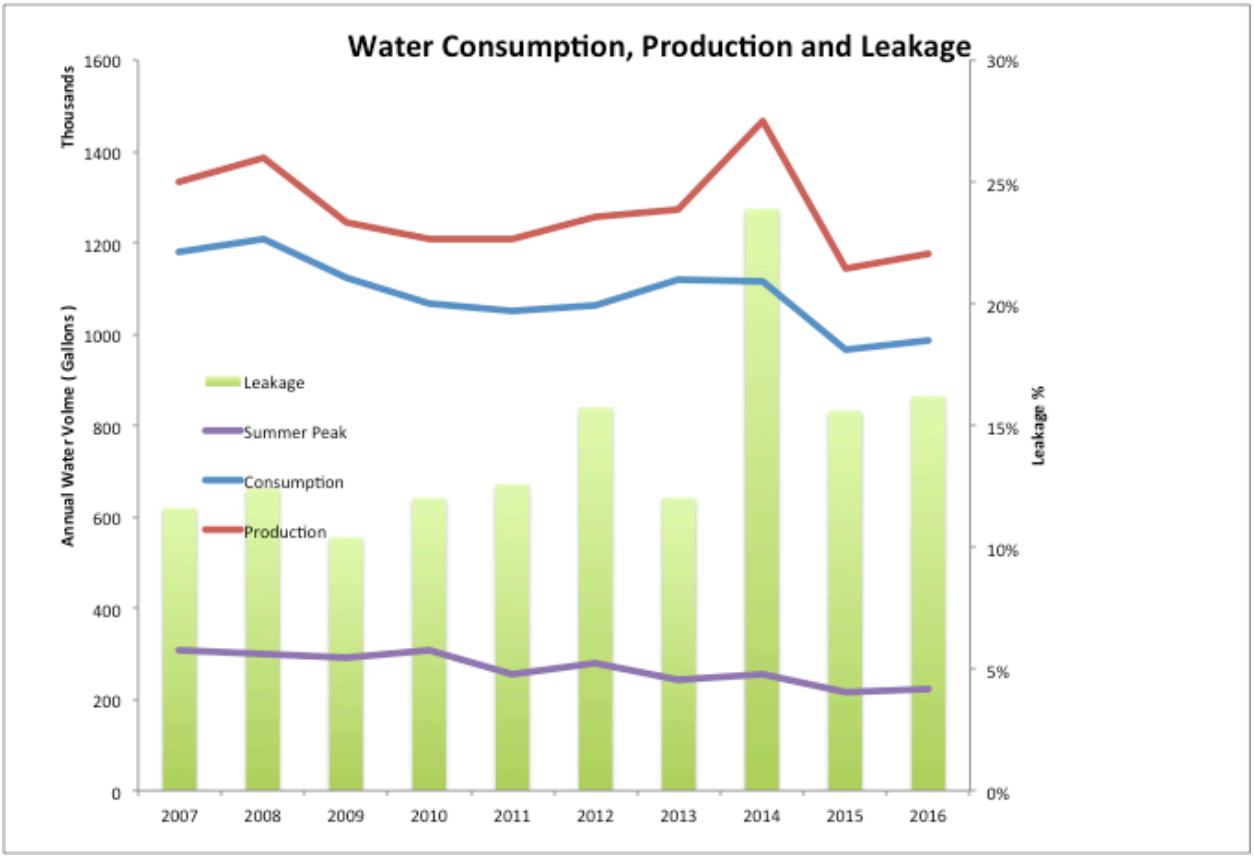
2017 will mark the 5th anniversary of the new storage tank. It has been recommended that the tank be drained, cleaned and inspected, but this has been deferred until 2018 to even out expenditures.

The last undeveloped property at 170 SPD is now developed and a water service was installed.

Water Consumption and Leakage

In 2016, water consumption had a slight increase over 2015, but still indicates the ongoing attention of residents to water conservation. Compared to any standard, Scott Point residents are very frugal users with annual daily water use per household of 45 gallons, compared to

guidelines that indicate households are considered to be conservative users at 130 gallons. (NOTE: the Scott Point data does not account for residents that are not full time, but does include a few properties operating B&B or short term rentals).



The total water consumed was 984,760 gallons, an increase of 21,700 gallons (or 2%) over 2015. But it should be noted that 2015 was the lowest consumption since the majority of the residences were built, although it should also be noted that RVYC no longer consumes water from the District's system during the summer months.

Following the policy of previous years, the Trustees decided that issuing blanket watering restrictions was not warranted, given the already low consumption levels. Providing general information on conservation and directly contacting individual residents with higher than usual water use has proved to be an effective strategy. It is also noted that a number of residents have installed rainwater capture cisterns which reduces gardening water demand on the system during summer – a big benefit for all.

The overall leakage rate in 2016 was 16.0%. But if the July leak was discounted, the rate was 10.8%, below the long-term average of 12.7% and another indication that the water main continues to be in serviceable condition.

Municipal Incorporation

We are now heading for a referendum on incorporation of Salt Spring Island. One of the impacts discussed in a consultant's report is the likely dissolution of improvement districts and devolution of water services to the new municipality. The Ministry has indicated it is likely that Local Area Services would be set up to ensure that the people who pay for service would continue to be the only ones who benefit from the service. The trustees had concerns about the District's reserve funds being absorbed without benefit, but the financing of Project Blend and the use of Local Area Service charges alleviate this concern.

But service provided by the professional staff of a new municipality would replace work currently done by volunteers, likely impacting water costs. And while incorporation would relieve residents from having to serve as trustees, there would be a loss of local input and approval.

Outlook

A couple of things of note as we look to the future, with or without incorporation:

1. Climate change is real and is having impact on precipitation and our water source. Local experts point out that the likely long-term impact in our area is for longer, drier summers like 2015 and heavier rainfall events during the winter. One impact on the District will be meeting future demand from the aquifer (the rocks can absorb only so much winter rainfall to meet a longer period of summer demand). The other impact is that heavier rainfall events increases the likelihood of turbidity in the wells that can add stress to the treatment plants.
2. Unlike a lot of other locations, development is not likely to cause stress on the demand for water on Scott Point. The service area is now built out and it is unlikely that increased density for re-development would be allowed. And over the past 10 years, the relative percentage of full-time residents to weekend/seasonal residents has been stable. But the number of residents, and a trend everywhere toward more short-term vacation rentals without water-use awareness, will need watching for possible impact on local demand.
3. Like infrastructure everywhere, the District's assets continue to age. While there is regular renewal of elements of the system (ie; storage tank, water treatment equipment), parts of the system (water main, valves and service connections) are now approaching 50 years. Even if there are currently in adequate shape, ultimately replacement will be necessary.