

March 2017 Water Shutoff in Summerland

Since the announcement that the District of Summerland will face a water shutoff for a weekend in March 2017 there have been many questions raised.

The District of Summerland recognizes the significant impact that this will have on everyone in Summerland. It is important to the District that the conversation about the impending water shutoff be started as early as possible even though all the final details are not complete and some questions are still outstanding. The District is committed to providing all the information to residents and businesses as soon as we have it available.

In a nutshell – the District of Summerland water system is expected to be shutoff between 7pm Friday March 3, 2017 and 7am Monday, March 6, 2017 to allow replacement of piping and equipment in the underground “PRV 10 Station” located at the intersection of Prairie Valley Road and Victoria Road, the replacement of the existing valve on Prairie Valley Road at Morrow Avenue and the installation of a new valve on Prairie Valley Road at Sinclair Road. The work cannot be done without a water shutoff and it is not possible to bypass the system to avoid the shutoff.

What is PRV 10?

PRV 10 is the abbreviation given to the Pressure Reducing Valve Station #10 which is a critical component of the water system. PRV 10 reduces the watermain pressure to safe levels, so downstream piping isn’t damaged. The PRV 10 piping is located in an underground concrete vault located at the intersection of Prairie Valley Road and Victoria Road which consists of piping, pressure reducing valves, isolation valves, and a series of smaller valves and controls. The pipe feeding PRV 10 is a 42” highly pressurized steel watermain which runs along Prairie Valley Road from the Water Treatment Plant. The 42” pipe splits into three – 12” pipes entering the station and reconverges to a 42” pipe before it leaves.

Why does the water need to be shutoff?

The water system infrastructure in Summerland is aging and critical components in the system are failing. One of the three pressure reducing valves within PRV 10 is no longer functional and can’t be repaired due to the failed isolation valves upstream. Two upstream isolation valves and a drain between them are required by WorkSafe BC in order for anyone to work on the valves in PRV 10. To eliminate a similar multi-day shutoff in the future, the existing valve on Prairie Valley Road at Morrow Avenue which has failed needs to be replaced and a second valve is required to be installed on Prairie Valley Road at Sinclair Road. To complete this work, the water needs to be shutoff at the Water Treatment Plant and the 3.4km of pipe between the Water Treatment Plant and PRV 10 needs to be drained of any water.

Why was the system designed such that a repair cannot be made on it without a lengthy shutoff?

The system was originally designed to allow PRV 10 to be operational during repairs of individual pressure reducing valves, however changes to safety regulations no longer permit such repairs. For this reason, new, engineer-approved high performance isolation valves will be installed in the station as well as a new isolation valve on Prairie Valley Road near Sinclair Road. The installation of these valves should greatly reduce the time required for any future maintenance within PRV 10.

What happens if this work isn’t done?

The risk of catastrophic failure increases the longer this work is delayed. Such a failure would create an emergency situation. In the case of a failure, the shutoff time would be longer, would occur without notice and could present a greater risk for staff and contractors working on the shutoff. In addition, the circumstances would likely cause watermain breaks and other issues due to the high pressure caused by the failure. For example, with such significant increased pressure from a failure, water systems within a home could blow up or roads could be washed away.

How was the date picked? Why March?

The District recognizes that there is never a good time to shut water off. This work must be done outside of freezing winter temperatures and outside the irrigation season (April to October) to ensure lower water flows through the system as well as continued water to farms during the growing season. The Fire Department concurred that an early spring date was the preferable time for such a shutoff as weather would not contribute to the fire risk. October 2016 was originally considered as a possible date but it was determined that more time was required to complete extensive engineering work and provide sufficient notice to those impacted. Possible dates in March were explored and it was determined that there were no large events planned in the District on that weekend.



What are the details of the project and why is the outage expected to take this long?

Prior to March 3, the excavation of an area at Kelly Avenue and Brown Street will be required to hold a large volume of the water drained from the system. Beginning at 7:00pm on March 3, the existing large diameter watermain from the Water Treatment Plant to PRV 10 will then be drained to allow this work to proceed. It is estimated to take **7 to 12 hours** to fully drain the watermain in order for the contractor to start the work. Once the watermain is drained, the work within PRV 10 is estimated to take approximately **24 to 36 hours**, working around the clock with multiple crews. The valve installations at Morrow Avenue and Sinclair Road will take place concurrently and are estimated to take less time than the work in PRV 10. In order to reduce shutoff time, only the minimum amount of work will be done in PRV 10 during the shutoff to allow the supply of water to resume to the District. The remaining works will continue over the following few days but will not affect water supply. Once the work is complete, water will be reloaded into the water distribution system and is estimated to take approximately **8 to 12 hours**.

Why couldn't a bypass be installed to avoid the shutoff?

There are very few valves between the Water Treatment Plant and PRV 10. In order for maintenance work to occur in PRV 10, WorkSafe BC regulations require two valves with a drain in between to ensure safety of the workers in the underground vault. Therefore, the water needs to be turned off at the Water Treatment Plant and there is no opportunity to bypass this part of the system. The District continues to explore bypass opportunities elsewhere in the system to possibly supply water on a limited basis.

What alternatives are the District of Summerland considering, if any?

The District, together with their consultants, have looked for alternatives to this shutoff. None were identified that would negate the need for a lengthy water shutoff. However, the District is continuing to explore options that may be available to reduce the impact of the shutoff. There is some potential to utilize resources and technology that may help to either shorten the length of time of the shutoff or increase the reserve of water available to critical facilities and for fire mitigation. It is too early to provide specific information about these possibilities as we have not confirmed whether they are feasible in this circumstance. A water shutoff will still be required. More detailed information on the opportunities being explored will be discussed at upcoming information sessions and announced as specifics are confirmed. The District determined that it was most important to give residents and businesses as much advance notice of a shutoff as possible even though more investigation is being done on options that may be available to reduce the impact.

What measures are being taken to limit risk of fire damage over the shutoff?

The fire department will be staffed for the duration of the shutoff with additional members onsite at the firehall. This will reduce response time in the case of fire. Water will be carried on all fire engines. The District currently has two water trucks available; the fire department is working on accessing two additional trucks. The water supply tanks for Lower Town, Trout Creek and Deer Ridge areas will remain full so that water will be available in the case of a fire. The District is continuing work on providing limited water sources for the downtown area for use in fire protection.

Why hasn't there been more information available so far?

The District is still working on engineering details to reduce the impact of the repair as much as possible.

The whole water system is aging - will this happen again?

The District will be installing valves that will greatly reduce future outages required for maintenance work within PRV 10. The District is not aware of other instances where a lengthy shutoff such as this would be required to maintain the system.

I pay water fees for the whole month. Will I get a discount for the duration of the outage?

No, discounts will not be given on Water Utility bills. The District of Summerland cannot avoid repairs and maintenance to the water system and there are occasions when residents and businesses will experience a water shutoff. This does not reduce the cost of operating the Water Treatment Plant and Water System.

What can I do to minimize the impact?

Tips and ideas on how to store water and minimize the impact of the shutoff will be presented at the open houses, in future newsletters, and on the District's website and Facebook page.

What else is the District doing to assist?

The District is continuing to explore ways that they can assist businesses and residents in the community during this shutoff. Since the water is being shutoff right at the Water Treatment Plant (as opposed to somewhere along the line) – there is no ability to bypass the work to provide water from the Water Treatment Plant to any part of town. There may be some opportunity to feed a limited amount of water from the Garnet Valley System and the separated Summerland Irrigation system to provide some water for fire flow or other emergency situations. A limited amount of storage water will also be held in concrete tanks located in the Trout Creek, Lower Town and Deer Ridge areas for fire suppression. The District is exploring the possibility of providing a source for refillable potable water. In addition, over the coming months, the District will provide information and ideas for storing water at businesses/residences for use during the shutoff.

When will the first information meeting be held?

Public meetings will be scheduled over the coming months in a variety of formats. The first information session (same presentation repeated on two separate evenings) will be held:

Tuesday, October 25, 2016	7:00pm	Centre Stage Theatre, 9518 Main Street
Thursday, October 27, 2016	7:00pm	Centre Stage Theatre, 9518 Main Street

The District will strive to keep you as updated as possible as information is available.