

November 26, 2019

PROJECT UPDATE: CULTUS LAKE SEWER SYSTEM

This update is intended to provide information on the status of the Cultus Lake Sewer System project. This Project has been the subject of much consideration, discussion, and planning for a number of years. It remains a high priority for the FVRD. However, despite the diligent efforts to see this Project come to a successful completion, progress has been slower than anticipated.

Over the past 12 months, the FVRD has faced significant challenges in finalizing design and proceeding to construction of this important infrastructure for the Cultus Lake community. It is hoped that this report will provide detailed information on recent developments, as well as the future, of this Project. In addition, more information and an updated FAQ section are available on the FVRD's website at www.fvrd.ca/CultusSewer.

The current Cultus Lake sewer system was built in the mid-1970s and has reached the end of its design-life. Recent condition assessments on the existing infrastructure indicate that the tanks, distribution boxes, and laterals are showing substantial signs of aging (as pictured below). Further, the sewage disposal field is showing dwindling percolation effectiveness.



A new Class A+ sewer system is critical to meet the needs of the Cultus Lake community. Along with residents, businesses, user groups, and federal and provincial agencies, the FVRD recognizes the value of Cultus Lake and the importance of protecting this sensitive environment with long-term solutions to ensure its sustainability. In 2015 and 2016 the FVRD went through an extensive community engagement process and established a Liquid Waste Management Plan (LWMP), approved in 2019 by the Minister of Environment identifying Class A+ sewer systems are needed for the Cultus Lake community.

DATA DRIVES DESIGN

In 2018, the Cultus Lake community approved construction of the Project and authorized the anticipated loan. The FVRD was optimistic that a scaled-down Project budget of \$6.5M could be achieved, even though the original estimate was approximately \$12 M for a larger system. The FVRD has many examples of building water and sewer projects that came in on time and under budget. Unfortunately, the planning, design, and construction of a new Cultus Lake Sewer Plant have faced numerous delays and unexpected setbacks. Changes in available information have driven the necessity for changes in design of the Project.

In 2014, the FVRD took over operation of the existing sewer system previously managed by Cultus Lake Park. It was not until late 2018, during the pre-design phase of the Project, that FVRD became aware that the flow meters installed by the Park Board had been damaged during installation and were wired incorrectly. It became clear that sewage flow from the existing system was nearly *double* what the meters had been showing. The initial flow had been measured by the defective meters at 520 m³/day. In fact, the actual flow was 920 m³/day. Initial Project cost estimates completed in advance of the 2018 referendum had been based on this flawed data. Once accurate information was obtained, the FVRD had to re-design the Project to increase the size of the treatment plant.

In addition, in May 2018 effluent sampling provided for Sunnyside Campground yielded significantly higher than anticipated Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) results. This information signaled the need for design and construction of a larger treatment plant. FVRD consultants advised that to accommodate a larger treatment plant, an increase in the Project footprint was required. The original site was expected to be approximately 2,500 m². When Sunnyside Campground was added to the Project, the footprint expanded to 5,500 m². With increased flow and loading of the effluent, the site increased to approximately 13,700 m² in size, necessitating the removal of more trees than originally anticipated (432 vs. 86 trees).

The need to expand the size of the Project, taking these factors into account, has resulted in approximately \$3M in increased cost estimates.

UNEXPECTED DELAYS

In late 2018, archaeological studies completed on the Project unexpectedly triggered further in-depth archaeological analysis. While the necessary impact approvals were ultimately obtained, this process resulted in a nine-month delay (October 2018 to July 2019). Construction projects throughout the Lower Mainland have all experienced cost increases over the past three years.

The cumulative effect of the delays experienced on the Project has resulted in approximately \$2M in increased cost estimates.

Recently, further complications have arisen due to the Cultus Lake Park Board threatening legal action against the FVRD in relation to the Project. Pending litigation complicates the FVRD's ability to proceed normally and hinders the ability to communicate with the Cultus Lake community.

UNSUCCESSFUL GRANT APPLICATIONS

In the various presentations made to the community, the FVRD identified its plan to apply for federal-provincial infrastructure grants that could potentially assist in financing this Project. Unfortunately, the FVRD has not been successful in receiving any of these grants to date. In fact, no local government in the Fraser Valley has been successful in these funding opportunities. In a continued effort to reduce the Project costs, over the past three months, the FVRD has been meeting with federal and provincial officials to reinforce the importance of this Project, not just for the residents and businesses of Cultus Lake, but for the many visitors who enjoy this special resource all year round. **The FVRD firmly believes that the cost to preserve Cultus Lake and improve infrastructure should not be borne by the residents and businesses alone.**

HOW CAN THE FVRD MOVE FORWARD?

In April 2018 the FVRD held a referendum to gain approval for long-term borrowing from the Municipal Finance Authority (MFA) of \$6.5M. It is clear that the Project is now going to cost more than \$6.5M. The tender for the next major phase of the Project closed in October 2019. Those results were not acceptable. The FVRD and its engineering consultants are now committed to going back out to market with a restructured tender package with the aim to lower the projected costs.

Because of the faulty flow meter data, the addition of Sunnyside Campground, and Project delays, the FVRD, and its consultants have concluded that a **maximum** of \$5M in additional funding will be required to complete the Project. There are several means to obtain this funding:

- The FVRD is still awaiting the results of a grant application for \$1.7M. This announcement had been expected in October 2019.
- There is a new grant funding opportunity available in early 2020. The Province of BC has stated that announcements on this funding will be made by the end of March 2020. With encouragement and advice from provincial leaders, we hope this application will be a successful one.
- Electoral Area Director Taryn Dixon has indicated that she is prepared to contribute a portion of funds in reserve for Electoral Area H Community Works toward this Project.

NEW REFERENDUM

Due to the increased costs necessitated by the expanded scope of the Project, and unanticipated delays experienced, the FVRD will have to hold another referendum as soon as possible to seek community approval for additional borrowing. If no grants were received, and the maximum of \$5M was required to complete this Project, the impact of additional long-term borrowing would be an approximate increase of **\$415 per connection**. At the January 2018 presentation to the community, the FVRD reported that the expected cost of the sewer system would have an approximate **\$1,100/year impact on each tax bill**. Borrowing an additional \$5M to complete the Project will cause these annual costs to be approximately **\$1,515/year (a \$415 increase)**.

The FVRD does not expect the Project will ultimately require as much as an additional \$5M, however, we do anticipate, given the unfortunate history of this Project, that this dollar amount be used for the referendum. If the FVRD is successful in the remaining grant opportunities, the full \$5M will not be required.

It is the FVRD's view that the Project must be completed. Milder temperatures during the 2019 summer season resulted in fewer visitors, allowing the existing sewer system to continue to function. It is not clear how much longer this aging system can withstand the strain. As the new sewer system will not be available until after the 2020 summer season the FVRD is currently working on a number of mitigation strategies to reduce the risk of the existing system failing to operate in the interim.

Further information about the referendum and further details about the Project will be sent to you in the New Year. Please visit the FVRD's website for regular updates: **www.fvrd.ca/CultusSewer**.