

To: Fraser Valley Regional District Board

Date: 2018-01-24

From: Sterling Chan, Manager of Engineering and Infrastructure

File No: 3920-20

Subject: Fraser Valley Regional District North Cultus Sewer System Service Area Amendment Bylaw No. 1465, 2018, Fraser Valley Regional District North Cultus Sewer System Expansion (Park Drive and Mountain View Road) Capital Construction Service Area Establishment

RECOMMENDATION

THAT the Fraser Valley Regional District Board give first, second and third readings to the bylaw cited as *Fraser Valley Regional District North Cultus Sewer System Service Area Amendment Bylaw No. 1465, 2018*;

AND THAT the Fraser Valley Regional District Board give first, second and third readings to the bylaw cited as *Fraser Valley Regional District North Cultus Sewer System Expansion (Park Drive and Mountain View Road) Capital Construction Service Area Establishment Bylaw No. 1466, 2018*;

AND THAT the Fraser Valley Regional District Board give first, second and third readings to the bylaw cited as *Fraser Valley Regional District North Cultus Sewer System Expansion (Park Drive and Mountain View Road) Capital Construction Service Area Loan Authorization Bylaw No. 1467, 2018*;

AND FURTHER THAT the Fraser Valley Regional District Board give first, second and third readings to the bylaw cited as *Fraser Valley Regional District North Cultus Sewer System Loan Authorization Bylaw No. 1468, 2018*.

STRATEGIC AREA(S) OF FOCUS

Support Environmental Stewardship
Support Healthy & Sustainable Community
Provide Responsive & Effective Public Services

PRIORITIES

Priority #1 Waste Management
Priority #2 Air & Water Quality

BACKGROUND

The Cultus Lake Park is served by two sewage collection systems under a single Ministry of Environment Permit. The sewer system is comprised of septic tanks and disposal fields. The system was constructed in 1979 and it was operated by the Cultus Lake Park Board until 2014 and since then FVRD has taken over the operation and maintenance of the sewer system.

The existing sewer systems do not have any treatment of the effluent and there is evidence to suggest that the system infrastructure has not been maintained to the industry standard for many years. Flow monitoring reports and septic sludge haul-out records appear to show that for the given period, the FVRD has been compliant with the Ministry of Environment Permit. However, previous reports have documented the risks associated with contamination of the nearby groundwater wells and the challenges in servicing growth. The accumulation of nutrients (e.g., phosphorus and nitrate levels) in the groundwater is a key concern as is bacteriological impact such as E-coli contamination of the lake water.

In order to address these concerns the existing system is in need of a major upgrade. In 2015 FVRD initiated a Liquid Waste Management Plan (LWMP) which is a provincially regulated process. The LWMP included several public consultation processes and evaluated an upgrade based on criteria such as holistic approach to sanitary management including lake impact assessment and monitoring program as well as aquifer protection plan. The LWMP requires that any future upgrade or any new system would be a Class A+ system (the highest classification under Provincial regulation is Class A), the plus (+) is to represent removal of phosphorus and higher level nitrates.

DISCUSSION

FVRD have been working with the Cultus Lake Park Board on the sewer system upgrade and expansion plan. The existing system does not currently provide service to Sunnyside Campground or homes located on Park Drive and Mountain View Road (Park/Mountain View). The proposed new Class A+ sewage treatment plant will be designed to include these areas and will also be expandable so that in the future nearby communities and BC Parks may also one day connect. FVRD has been working with the Parks Board on the location of the plant and system expansion. The following Figure 1 shows the location of existing and future systems/plants.



Figure 1: Existing and Future Sewer System Locations

Previously staff had engaged Urban Systems Ltd to conduct a site assessment and predesign study which has estimated the capital cost of the new Class A+ sewage treatment plant to be approximately \$6.5 million. The cost to expand the sewage collection system to provide service to homes on Park/Mountain View was estimated to be \$945,000.

The cost of the new sewage treatment plant would be paid for by all users of the Cultus Lake Sewer System, meanwhile the additional cost to extend the sewer system to service properties on Park/Mountain View would be paid for only by the lease holders of the properties on Park/Mountain View. The funds required to complete each of these projects would be borrowed and paid back over the next 20 years.

The cost to lease holders on Park/Mountain View will be approximately \$1,685 per year (\$1,285 if the property is not connected to the sewer) with the cost decreasing to \$400 after 20 years once the borrowing has been repaid. The cost to all other users will be \$910 per year (\$965 if the properties on Park/Mountain View do not participate) with the cost decreasing to \$400 after 20 years once the

borrowing has been repaid. For both groups, the cost will be recovered through a combination of property taxes starting in 2020 and a semi-annual utility bill. This cost includes the cost of operations, capital debt repayment and contributions to a reserve fund. The FVRD intends to apply for grant funding to help pay for this project, however, nothing has been secured at this time. These cost estimates should be viewed as 'worst case scenario' figures based on no grant funding.

To complete the project there are two public assent processes, which must be undertaken. The first is a petition process involving the lease holders on Park/Mountain View which will determine whether or not proceed with borrowing funds and constructing the expansion of the sewage collection system in order to service properties on these two streets.

In order to proceed, properties on Park/Mountain View must be included within the North Cultus Sewer System Service Area. The proposed *Fraser Valley Regional District North Cultus Sewer System Service Area Amendment Bylaw No. 1465, 2018* addresses the required adjustment to the service area boundaries.

As well, a new service area and loan authorization bylaw must be established in order to borrow the necessary funds. The proposed *Fraser Valley Regional District North Cultus Sewer System Expansion (Park Drive and Mountain View Road) Capital Construction Service Area Establishment Bylaw No. 1466, 2018* and *Fraser Valley Regional District North Cultus Sewer System Expansion (Park Drive and Mountain View Road) Capital Construction Service Area Loan Authorization Bylaw No. 1467, 2018* are required to borrow the \$945,000 to complete this work.

For the petition to be successful a minimum of 50% of the lease holders must sign and return the petitions. Additionally, those lease holders who do sign the attached petitions must represent a minimum of 50% of the total assessed property value for properties on Park/Mountain View. If a petition is not returned, it is assumed that the lease holder is not in favour of the project. If the petition process is successful and the service areas are created, all properties will be included regardless of response. However, lease holders will be given the option to decide whether they wish to connect to the new sewer after it has been installed and will be charged a lesser if they are not connected.

The second public assent process is a referendum to determine whether or not funds will be borrowed to construct the new sewage treatment plant. The referendum will be open to all residents within the North Cultus Sewer System Service Area, which may include residents on Park/Mountain View depending on the results of the petition process.

The proposed bylaw *Fraser Valley Regional District North Cultus Sewer System Loan Authorization Bylaw No. 1468, 2018* is required to borrow the \$6,500,000 to complete this work.

Staff held a public information meeting on January 18th at the Cultus Lake Community School to inform and consult with residential and commercial lease holders, and residents of the Park. Shortly after the public engagement process the petition process was initiated. The petition process is open until February 14th, 2018 after which time it will be known if it was successful. The referendum has been scheduled for April 14th, 2018.

COST

The total cost to construct an extension to the sanitary sewer system to provide service to properties on Park/Mountain View is not expected to exceed \$945,000.

The maximum borrowing permitted by the *Fraser Valley Regional District North Cultus Sewer System Expansion (Park Drive and Mountain View Road) Capital Construction Service Area Loan Authorization Bylaw No. 1467, 2018* is \$945,000 over a 20 year term.

The total cost to construct a new Class A+ sewage treatment plant is not expected to exceed \$6,500,000.

The maximum borrowing permitted by *Fraser Valley Regional District North Cultus Sewer System Loan Authorization Bylaw No. 1468, 2018* is \$6,500,000 over a 20 year term.

CONCLUSION

The proposed upgrade and expansion of the existing system would bring tremendous environmental and health benefit to the community. This initiative is highly supported by regulatory bodies including the Ministry of Environment and Ministry of Health and the surrounding First Nations. Reduction of environmental and other liability of the expiring existing system is also very much in consideration.

COMMENTS BY:

Tareq Islam, Director of Engineering & Community Services

Reviewed and supported.

Mike Veenbaas, Director of Financial Services

Reviewed and supported.

Paul Gipps, Chief Administrative Officer

The existing disposal system is nearing end of life and the project is a priority to receive Provincial approvals to get the assent vote and subsequent permits to construct.