

To: CAO for the Electoral Area Services Committee  
From: Sterling Chan, Manager of Engineering and Infrastructure  
David Bennet, Planner II

Date: 2019-04-09

**Subject: Community Sanitary Sewer Servicing in North Cultus**

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### RECOMMENDATION

**THAT** in accordance with the FVRD Development Procedures Bylaw No. 1377, 2016 the Fraser Valley Regional District Board defer consideration of new bylaw amendments and new development applications proposing to connect to the North Cultus Sewer System, until such time that a policy guiding additional sanitary servicing and service expansion in North Cultus is adopted.

### STRATEGIC AREA(S) OF FOCUS

Support Environmental Stewardship  
Foster a Strong & Diverse Economy  
Support Healthy & Sustainable Community  
Provide Responsive & Effective Public Services

### PRIORITIES

Priority #1 Waste Management

### BACKGROUND

#### Current Sewage Servicing at Cultus Lake

Cultus Lake Park is currently 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. 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 approaches 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.

### **A New North Cultus Sewer System**

On April 14th 2018, a referendum was conducted to determine whether to proceed with a plan to build a new wastewater treatment plant (WWTP) for Cultus Lake. The referendum passed and subsequently Fraser Valley Regional District North Cultus Sewer System Loan Authorization Bylaw No. 1468, 2018 was adopted. This bylaw authorizes the FVRD to borrow up to \$6,500,000 for this project. Construction of the new WWTP is currently underway.

### **New System Capacity**

The LWMP envisions that the new WWTP will, in time, service the entire north side of Cultus Lake including the Cultus Lake Park Board, the Parkview Neighbourhood and BC Parks. The new WWTP is designed so that it can be expanded in phases. The current phase under construction has capacity for the Cultus Lake Park Board as well as the development applications described in the section below. Subsequent phases will be constructed at a future date as dictated by demand. Given the large capital cost of constructing a new phase it will likely take a significant new user (i.e. BC Parks) to trigger this.

It is considered likely that once in operation the new WWTP will prove itself to have some excess capacity. The engineering and design of a WWTP is typically quite conservative with several factors of safety built in. The actual amount of excess capacity will remain unknown until the plant has been built and has been operated over the course of several seasons.

For that reason, it is recommended that the Fraser Valley Regional District Board defer consideration of new bylaw amendments and new development applications proposing to connect to the North Cultus Sewer System, until such time that a policy guiding additional sanitary servicing and service expansion in North Cultus is adopted. This policy should be developed after analysis of several years worth of peak season sewage flows.

### **Instream FVRD Electoral Area "H" Applications**

There are three instream developments in Electoral Area "H" seeking to connect to the new North Cultus Sewer System:

- Rezoning and Official Community Plan amendment to facilitate up to thirty three (33) single family residential lots at 45900 Sleepy Hollow Road. This proposal is currently at Third Reading and the developers are completing technical reviews and registration of covenants and development agreements.

- Subdivision Application for a six (6) lot single family residential bare-land strata subdivision at 3636 Columbia Valley Road. This proposal is already zoned for the proposed density but required connections to both a community water and community sewer system.
- Redevelopment of 3816 Columbia Valley Road under the existing commercial zoning to develop a motel complex of approximately 30 detached cabins. This proposal does not require rezoning, or development permits. Building Permits are required.

These projects are within the design capacity of the new North Cultus Sewer system, and connection to this system is required in order for these projects to be developed. This policy will not affect instream applications only new applications.

### **North Cultus**

Within the North Cultus community, there is potential for in-fill or redevelopment. In the Electoral Area "H", single family residential uses, as well as the existing commercial uses on Columbia Valley Road, are served by individual on-site septic systems. Market changes and increased demand for smaller lots requires a transition from onsite septic to a centralized communal sewage system. Current policy requires that all newly created lots 0.225 ha and smaller be connected to a Class A community sewer system owned and operated by the FVRD.

### **Within Cultus Lake Park**

In Cultus Lake Park, residential lease lots are being converted from seasonal cabins to larger single family homes that are occupied year-round. Existing commercial leaseholders may be considering expansion or increased densities. Additional opportunities for growth are also identified in Plan Cultus.

The FVRD must engage with the Cultus Lake Park Board regarding future development within the Park, the sewer system's capacity to accommodate development, and the timing of new developments in relation to sanitary sewer system development.

## **DISCUSSION**

Upon completion of the new WWTP, it is anticipated that two or three full years of data will be required to understand the flows generated by the seasonal use of Cultus Lake Park as well as the demand on the system from year-round residential and commercial users of the system. With this data, the FVRD will be able to determine the potential for service area expansion in order to utilize any remaining treatment capacity. Should a project or connection request exceed this capacity, the developers will be responsible for expanding the WWTP to the subsequent phase to allow for additional connections.

A policy to guide the allocation of any additional capacity and the potential expansion of the system is required to avoid ad-hoc sewage service and to have a well-planned out service area with operational

efficiencies to avoid potential financial challenges. This policy will avoid over-commitment to new developments.

In accordance with the Fraser Valley Regional District Development Procedures Bylaw, upon the receipt of a rezoning application the Board may:

- a) give readings to or adopt the bylaw;
- b) give readings to or adopt the bylaw as amended by the Board in its resolution;
- c) refer the application for bylaw amendment to the Electoral Area Services Committee for further consideration;
- d) defer consideration of the amendment to a future meeting of the Board;
- e) refuse the application for an amendment.

Staff are recommending that until this new sanitary servicing policy is in place that the Fraser Valley Regional District Board consider applications for new developments, beyond those in stream projects already in progress, as pre-mature and defer consideration until the sanitary sewer policy is adopted.

The consequences of advancing new developments prior to the implementation of sanitary sewer servicing policies may result in the following:

- Reduced infrastructure efficiency
- Inconsistent or one-off servicing decisions
- Reduced effectiveness of the Official Community Plan
- Less consistent standards or approaches between developments
- Reduced public confidences in a well planned community
- Loss of development potential
- Unequitable or undesirable allocation of remaining system capacity
- Potential operational issues
- Potential Ministry of Environment sewer permitting compliance issues

### **Implications for New Applications**

The FVRD's consideration of new development applications requesting connection to the new North Cultus Sewer System will be deferred until sanitary sewer policies are adopted. Policy adoption would occur after analysis of peak and seasonal sewage flow data. This data is expected to be collected over a period of two or three years in order to determine peak and seasonal flows generated within the service area. Types of development applications from Cultus Lake Park and Electoral Area "H", that would be deferred include; Official Community Plan amendments, rezoning applications, and applications that require community sanitary service connections. Approvals for single family home construction on existing lots or existing leases lots within the service area would not be deferred. Furthermore, large applications triggering advancement into the second phase of the WWTP could be considered on a case by case basis in advance of completion of the policy.

## **Procedure for Processing Land Use Applications.**

Rezoning and Official Community Plan amendments:

FVRD staff will advise prospective developers of the Board resolution. If a developer chooses to submit an application, the application will be brought forward to the Electoral Area Service Committee and the FVRD Board for consideration. The staff recommendation will be to refuse the application, or to defer consideration of the application, in accordance with this resolution.

Subdivisions:

The FVRD is not the approving authority for subdivisions in the Electoral Areas. The FVRD will respond to subdivision referrals that require connection to a community sanitary sewage system by advising the Provincial Approving Officer that the application is premature and should not receive final approvals until the sanitary servicing is guided by an FVRD sewer servicing policy.

## **COST**

There are no costs associated with this report.

## **CONCLUSION**

In accordance with the FVRD Development Procedures Bylaw No. 1377, 2016, the Fraser Valley Regional District Board defer consideration of new bylaw amendments and new development applications proposing to connect to the North Cultus Sewer System until such time that a policy guiding additional sanitary servicing and service expansion in North Cultus is adopted.

## **COMMENTS BY:**

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| <b>Graham Daneluz, Deputy Director of Planning &amp; Development</b> | Reviewed and Supported |
| <b>Tareq Islam, Director of Engineering &amp; Community Services</b> | Reviewed and Supported |
| <b>Margaret Thornton, Director of Planning &amp; Development</b>     | Reviewed and Supported |
| <b>Mike Veenbaas, Director of Financial Services</b>                 | Reviewed and supported |
| <b>Paul Gipps, Chief Administrative Officer</b>                      | Reviewed and supported |