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September 22, 2017

File No. 5340-30-CHS/01

Dear Customer:

Further to our November 1, 2016 letter to customers, the Cowichan Valley Regional District (CVRD) would like to update customers on the Cobble Hill Sewer System and required upgrades.

In May 2017, work was undertaken on the sewage treatment plant to repair the gear drive on the rotating biochemical contactor unit. This repair only provided a short-term solution to the required work at the plant. The system components are nearing the end of their life and will soon need a complete replacement or upgrade. The longer the upgrade or replacement work is delayed, the more effort and financial input will be needed to maintain the system. CVRD staff have explored different options for the long-term solution for the sewer system and will work with the community to decide on the best, long-term, sustainable solution.

The CVRD operates 16 sewer systems located throughout the regional district and two of these systems are within Cobble Hill: Cobble Hill Sewer System and Twin Cedars Sewer System. One of the long-term goals of the CVRD is to combine smaller systems into bigger, centrally located treatment plants. Larger systems, with more customers, are much more cost effective to operate than several small system each with small customer numbers. Combining Cobble Hill Sewer System with Twin Cedars Sewer System is one of the options that is being explored and is explained in further detail below.

Combining Cobble Hill Sewer System with Twin Cedars Sewer System

Twin Cedars Sewer System, constructed in 2009, services a 75-lot subdivision off of Hutchinson Road, Evergreen Independent School, and various commercial properties. The Twin Cedars Sewer System wastewater treatment plant utilizes sophisticated technology that produces very high quality wastewater treatment. The Twin Cedars wastewater plant would need some upgrading to accept the wastewater from Cobble Hill Sewer System but the facility does have additional capacity to treat more wastewater.

By combining the two systems the wastewater treatment plant for Cobble Hill Sewer System (located off Galliers Road) would be eliminated and the wastewater would be pumped to the Twin Cedars plant for treatment. This would eliminate the odours that are currently experienced by some homeowners, particularly those living close to the treatment plant.

The treated sewage produced by Twin Cedars Sewer System is used as irrigation to water the lawns at Quarry Nature Park and also in the public washrooms to flush the toilets. In the summer the amount of treated sewage produced by Twin Cedars is not enough to supply all the irrigation needs for the Park, and domestic water from Cobble Hill Improvement District is used to supplement the irrigation needs of the park. The additional wastewater from Cobble Hill Sewer System would benefit the irrigation of the park and lessen the strain on the domestic water supply.

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The disposal fields at Cobble Hill Sewer System would remain to supplement the capacity, but be upgraded to rapid infiltration basins during times that the effluent is not used for irrigation at the park.

The estimated capital costs for combining the two systems is \$700,000. At the recommendation of your Area C Director, Matteus Clement, the CVRD Board has allocated \$160,000 from Community Works (gas tax) funding towards the project and Cobble Hill Sewer System has \$35,000 in reserve funds, leaving approximately \$500,000 to be funded. This remaining amount would be funded through a long-term municipal loan from the Municipal Finance Authority and would be paid back by the customers of Cobble Hill Sewer System at an annual cost per home of \$460. The project costs include: upgrades to the Twin Cedars wastewater treatment plant to accommodate the additional flow from Cobble Hill Sewer System, an odour control unit at the Twin Cedars treatment plant and construction of Rapid Infiltration Basins (RIB) at the existing Cobble Hill disposal fields. Other costs are the contributing costs for operating the Twin Cedars Sewer System which, when shared by customers of both existing Twin Cedar customers and Cobble Hill customers, would drop from \$1049 to about \$850 per year. The estimated costs for debt repayment and operating costs is \$1,310/customer/year (operations = \$850, debt = \$460, for a total of \$1,310).

The other option explored is to replace the components of the Cobble Hill Sewer System with the same technology currently in place. This option is detailed below.

Upgrade Cobble Hill Sewer System with the Same Technology

All sewer systems, with very few exceptions, are regulated by the Ministry of Environment (MoE) either through permits or registrations. Sewer systems constructed prior to 1999 were issued a permit by MoE and systems registered after 1999 were issued registrations. Permit requirements are less stringent than registrations and Cobble Hill Sewer System currently operates under a permit. To continue operating under the permit the upgrades would require replacement of parts with 'like-for-like'. Any changes to how the wastewater is treated, or any added or deleted components, would initiate a registration under the Municipal Wastewater Regulation (MWR). Further, since Cobble Hill is within the area covered by the South Sector Liquid Waste Management Plan, all new systems require Class A treated sewage. Class A treated sewage is the highest quality. To continue operating under the permit the upgrades would need to be replacement of parts with like-for-like to avoid moving to registration.

Cobble Hill Sewer System utilizes treatment technology that produces lower quality treated sewage but, with replacement, would meet the requirements of the permit. The disposal fields are also showing signs of failure and would need to be re-constructed. A Purafil odour control unit is proposed as part of the upgrade. The Purafil unit is used at other CVRD-operated sewer systems and provides superior odour control.

The estimated costs for replacing the treatment technology with 'like-for-like' and reconstruction of the disposal field is estimated at \$1,195,000. As indicated above, your Area Director has allocated \$160,000 from Community Works (gas tax) funding and with the \$35,000 in reserve funds this leaves approximately \$1,000,000 in capital costs. The cost for funding the capital project would be through a long-term loan through the Municipal Finance Authority at an annual cost of about \$920 per home. This would equate to approximately \$1,500/customer/year (operational = \$580, debt = \$920, for a total of \$1,500).

Recommended Option

The most cost effective, long-term sustainable solution for the community is to combine Cobble Hill Sewer System with Twin Cedars Sewer System. This option supports the recommendations from the INNOVA utility review completed in 2016 that suggests combining systems whenever possible for financial stability of the systems. Twin Cedars Sewer System produces high quality treated sewage and operates under a registration. If, in the future, MOE requires all systems to move to a registration and Cobble Hill Sewer System is still an independent system, the cost to upgrade from a permit to registration would be borne by the customers of Cobble Hill Sewer System alone. Further, combining the two systems is the less expensive of the two options making it a financial benefit to customers of Cobble Hill Sewer System.

Utility Review

An independent utility review and assessment of all CVRD water and sewer systems was completed earlier this year. The CVRD worked with INNOVA Strategy Group to review the operation, maintenance and long-term planning of the water and sewer systems with the regional district. The CVRD water and sewer utilities were rated on a scale of 1 to 10 for general condition. The rating assesses conditions such as the amount of required capital improvements, how the system meets established standards and risk to public health and the environment. Cobble Hill Sewer System received a rating of 1, the lowest possible rating, whereas Twin Cedars Sewer System received a rating of 9. This review and rating provides further support for combining Cobble Hill Sewer System with Twin Cedars Sewer System.

Further information will be provided to customers at a community meeting that we will schedule for the Fall 2017 or early 2018. This will give the opportunity for customers to ask questions and provide feedback on the options. Once the meeting date has been scheduled we will notify customers through a notice that will be sent in the mail.

Please contact us at 250.746.2530 if you have any questions.

Kind regards,



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