

Cowichan Valley Regional District | November 16, 2016

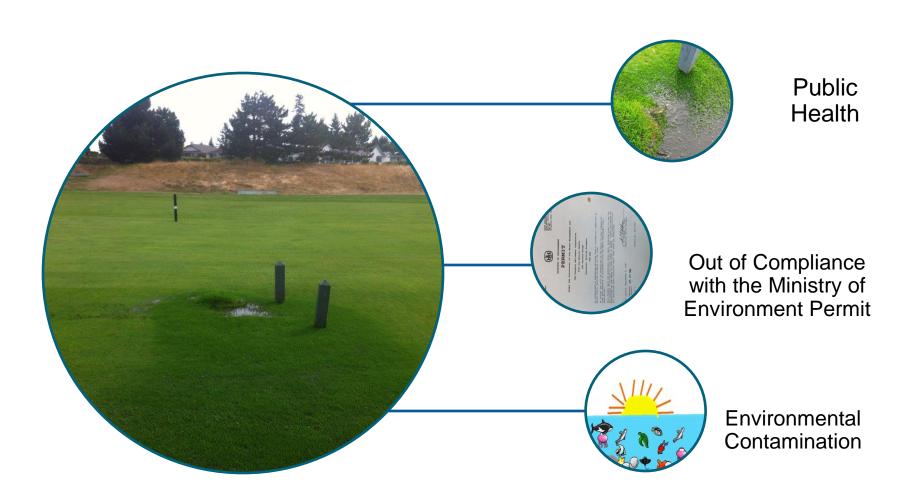
Arbutus Ridge Wastewater System Upgrade Project

What is the Concern?



The central problem is the disposal fields have failed and effluent is surfacing on the ground

Why is this a concern?



What has Been Done to Date?



Investigation of the Disposal Fields



Hot water, high pressure cleaning of the disposal field pipes



Preparation of a report outlining the possible options to repair the problem and estimated costs

What are the Options?

OPTION A. REPLACE THE EXISTING DISPERSAL PIPE TRENCHES

- This work may be completed under the current operating permit with the Ministry of Environment
- Requires purchasing land to allocate for a standby field as the original land designated for the standby field is now disposal field 2
- The existing treatment infrastructure would need eventual replacement

OPTION B. REPLACE THE EXISTING TREATMENT INFASTRUCTURE WITH **EXISTING** TECHNOLOGY AND ADD COMPONENTS CAPABLE OF PRODUCING CLASS A EFFLUENT

- Replace the existing disposal field with a smaller field (possible because of the cleaner effluent generated by the treatment plant)
- Move from the existing Permit to Registration with the Ministry of Environment (additional expense associated with this)

OPTION C. REPLACE THE EXISTING TREATMENT INFASTRUCTURE WITH **NEW** TECHNOLOGY CAPABLE OF PRODUCING CLASS A EFFLUENT

- Replace the existing disposal field with a smaller field (possible because of the cleaner effluent generated by the treatment plant)
- Move from the existing Permit to Registration with the Ministry of Environment (additional expense)
- Have the option of using the treated effluent as irrigation on the golf course

What is the Recommended Option?

OPTION C. REPLACE THE EXISTING TREATMENT INFASTRUCTURE WITH NEW TECHNOLOGY CAPABLE OF PRODUCING CLASS A EFFLUENT

- Replace the existing disposal field with a smaller field (possible because of the cleaner effluent generated by the treatment plant)
- Move from the existing Permit to Registration with the Ministry of Environment (additional expense)
- Have the option of using the treated effluent as irrigation on the golf course

Why Option C?

The CVRD worked closely with the Civil Works
Committee and have kept the members well informed of the progress

Together, with the Civil Works Committee, Option C was identified as providing the best, long-term, sustainable solution.

The high quality effluent will result in a smaller footprint requirement for the disposal field

- -eliminating the requirement to secure a reserve field (apart from the already existing)
- the high quality effluent will mean a longer lifespan for the disposal field.

How Much will it Cost?

Replace one of the existing disposal fields with new dispersal pipe (the other disposal field would be kept as a reserve field)

Replace existing treatment plant with new technology capable of producing Class A effluent

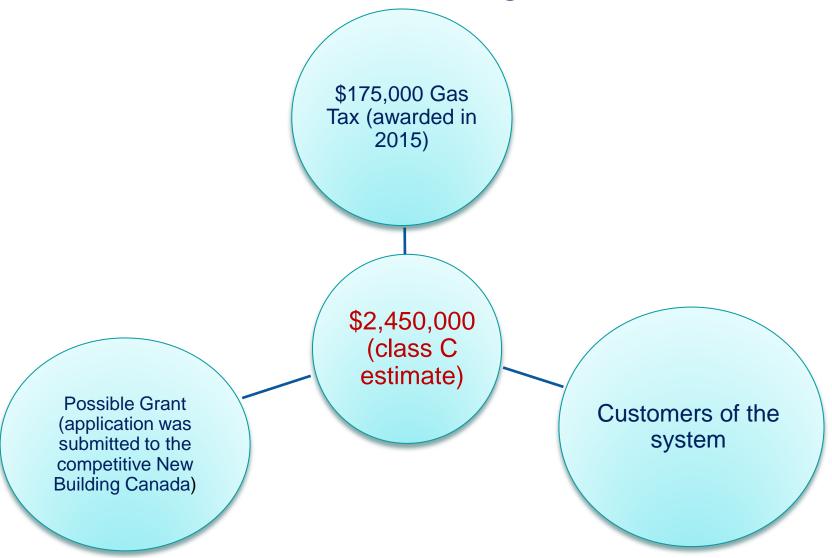
Have the option of using the treated sewage for use as irrigation water on the golf course (additional \$300,000)



\$2,450,000

(class C estimate, net cost)

Where will the Funding Come From?



What will be the Cost to each Customer?

Assuming..

4% interest rate throughout the 25-year borrowing term

Grant application is not successful

Borrowing net cost of \$2,450,000 (class C estimate)



\$60(approx.)/month/household

Operation and Maintenance \$39.00/month/household

Borrowing Costs \$21/month/household

Current Charges are \$34.80/month/household

Next Steps.....

The CVRD will prepare and send out a letter to all the residents of Arbutus Ridge that will summarize the project and ask for any feedback from the community.

Completed, very little feedback received



An Engineering Firm will be engaged to prepare a Class C estimate for Option C.

This will provide a more detailed cost estimate of the project

Completed, \$2,450,000 is Class C cost estimate



A Petition will be prepared and circulated to every household in Arbutus Ridge as a means for the CVRD to gain approval from the community to borrow the funds for the project. For the petition process to be successful a minimum of 50% of the property owners representing 50% of assessed property values must sign the petitions. Scheduled for March 2017

Questions?