



REGIONAL DISTRICT OF NANAIMO

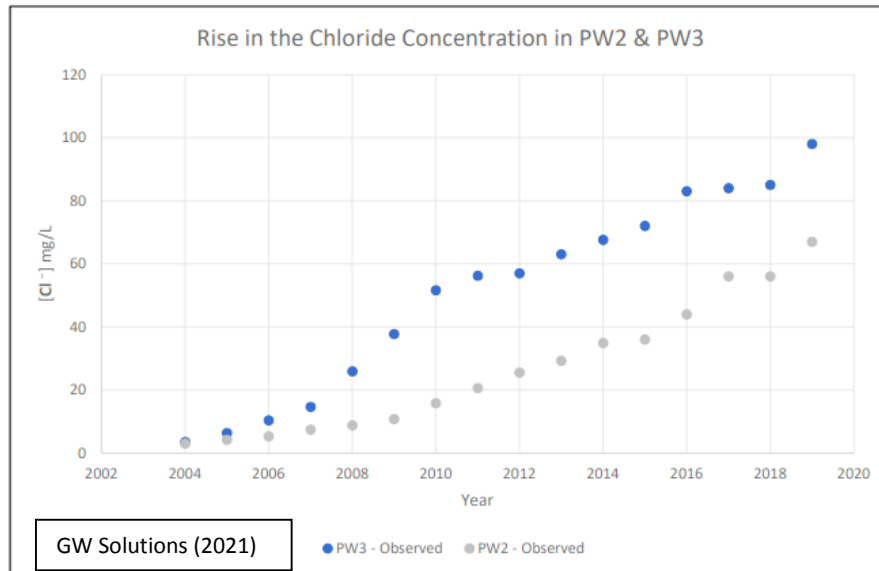
RIVER’S EDGE WATER QUALITY IMPROVEMENT PROJECT – SEEKING BOARD DIRECTION FOR TYPE OF PARTICIPATING AREA APPROVAL

RECOMMENDATION

That the Board of the Regional District of Nanaimo endorse the use of a petition process to obtain participating area approval for the borrowing required for the River’s Edge Water Quality Improvement Project.

BACKGROUND

The River’s Edge Water Service Area (REWSA) is located off of Kaye Road, in Electoral Area G, to the southeast of Parksville, B.C. This subdivision was established in 2003 and the drinking water supply comes from drilled wells that were installed by the original developer. There are three stacked aquifers (on top of each other) in the area of the Regional District of Nanaimo (RDN) production wells, with the REWSA wells being completed in the middle aquifer (Provincial Mapped Aquifer 219), which produces good quality water. The upper aquifer is generally not productive and the lower aquifer (Provincial Mapped Aquifer 1098) contains water with high concentrations of chloride, manganese, and other ions that are undesirable in drinking water. In 2021, a hydrogeologist retained by the RDN to work on other issues in the water system, identified an increasing trend in the concentration of chloride ions in the REWSA source well water, as depicted in the graph below.



The aesthetic objective for the chloride ion concentration listed in the Canadian Drinking Water Guidelines is 250 mg/L, but the water will taste “salty” at a level of around 200 mg/L, and is considered undrinkable at some point

below 1000mg/L. If the increasing trend of dissolved chloride is not proactively addressed, within 10 years the water quality in the River's Edge Water Service Area will no longer meet the Canadian Drinking Water Guidelines and the water will have to be treated in a desalination facility.

The hydrogeologist was further engaged to study the source of the chloride contamination and to propose potential solutions. The study concluded that a hydraulic connection exists between the undesirable water in lower aquifer and the good quality water in the middle aquifer. The hydraulic connection is slowly affecting the water quality in the middle aquifer. The movement of water between the aquifers is facilitated and exacerbated by the concentrated withdrawal from the middle aquifer at the site of the two REWSA production wells.

Two effective long-term solutions to this water quality issue have been identified:

1. Do nothing now, but start planning for the construction of a desalination facility in about ten years. A facility of this type would require significant capital (~ \$6 million) to build and would incur significant annual operating, maintenance, and renewal costs. Facilities of this type also generate concentrated effluent that is difficult to dispose of.
2. As recommended in the hydrogeologist's report, this solution involves drilling a number of new wells located far away from each other and the existing production wells. By pumping the same quantity of water but from widely distributed wells, the driving force for water movement between the two aquifers will be greatly reduced. In the hydrogeologist's opinion, this should reduce the rate of increase in the chloride ion concentration and defer any need for desalination for 80 to 100 years at the current water consumption rates. If water consumption rates (primarily in the summer) could also be reduced, this time would be extended further. This solution, while still requiring a capital investment of several million dollars, does not carry any significant annual operating, maintenance, and renewal expenses and does not create a waste disposal problem. This is the solution that RDN staff have selected to pursue as the River's Edge Water Quality Improvement Project (the Project).

Asset renewal of this magnitude in order to maintain a minimum level of service, i.e., potable water in significant quantity and quality, has not been contemplated in the REWSA long term renewal plan. As a result, there are no reserve funds available for the Project, and borrowing from the Municipal Finance Authority would be required. Participating area approval is required before the RDN can borrow funds on behalf of the REWSA property owners. Three options for participating area approval are listed in the provincial guidelines and are summarized below.

1. Option 1: Assent Voting (Referendum)- A referendum is conducted in a similar manner to local government elections and can either be done at the same time as a general local election or by-election, or on its own as a stand-alone vote. This method is typically used to gain elector approval if an issue is controversial, requires a significant contribution of taxpayers' dollars, or is significant in scale or impact on the community. The voting day must be a Saturday, various notices are legislatively required, including notice of applications to volunteer as scrutineer, and notice of referendum. The cost of holding a stand-alone vote on a specific issue apart from a general election is significantly higher in comparison to other options for elector approval. Another disadvantage of a referendum is that a number of the River's Edge property owners do not live in the local service area all year-round and may not be able to easily participate. One additional disadvantage is that local area residents and renters may participate in a referendum and may skew the outcome against what the actual property owners want.
2. Option 2: Alternative Approval Process (AAP) - The provincial best practices guidelines indicate that this method is used when the public has been actively engaged and there are reasonable indications that citizens are in favour of the initiative. This method is also used if the proposed project affects the

continuity of the service (i.e., not optional). If ten percent of the eligible electors have not submitted elector response forms in opposition to the initiative, the project may proceed as proposed. Some advantages of the alternative approval process are that it provides increased accessibility and flexibility over a referendum as there is a minimum of 30 days for electors to express their views which can include submitting responses electronically by fax or email, and it is a more cost-effective alternative to a referendum. Some disadvantages of the AAP are that there can be poor public perception of this method, and there would be extra costs of redoing the elector approval process again in a different manner (referendum) if it was unsuccessful.

3. Option 3: Petition - This method uses paper petitions individually mailed to each property owner to garner support for the initiative. Signed petitions in support of the proposed initiative, must be returned to the RDN by owners of at least 50% of the parcels in the REWSA, and those parcels must represent at least 50% of the assessed value of all the properties in the REWSA. The petition must indicate the relevant electoral participating area, purpose of the proposed borrowing, estimated amount of the proposed borrowing, and the maximum term of the loan. The electoral area director must also consent in writing to the adoption of the bylaw to borrow funds for the project. If an owner does not agree with the proposed project/service, they may destroy their petition instead of returning it to the regional district. The advantages of a petition process are that it is less expensive than a stand-alone referendum in this case, it requires active elector participation, and the results are easy to interpret. The main disadvantage of a petition would be the cost and complexity of managing the mailed documents if it was an extremely large population. With only 157 properties in the REWSA, the cost and complexity of managing the mailed documents in this case is not significant.

RDN staff's preference is to use Option 3, a Petition, to garner support for the borrowing of funds for the project. Petition correspondence by mail is considered to be the most fair and equitable way to garner participating area approval, and has been widely used within the RDN for water service improvement projects over the past 20 years.

## **FINANCIAL IMPLICATIONS**

RDN staff, along with help from an engineering consultant, have completed a substantial amount of the detailed engineering required for the Project, and a Class B cost estimate for construction has been prepared. The budget for the Project, to be executed in 2025 if electoral assent is achieved, is \$3,435,270. All direct and indirect costs identified in the cost estimate have been escalated to reflect expected 2025 costs. The budget includes allowances for permits, consultants, and contingency amounts tailored to the risks involved in executing different aspects of the final design, construction, and commissioning. Revenue for the Project execution in 2024 and 2025 includes:

- Participating area approval costs funded from the ERWSA Operating Budget of \$10,000;
- Internal Capital Administration Charge funded from the ERWSA Operating Budget of \$34,543;
- Electoral Area G Community Works Funds allocation of \$100,000;
- Growing Communities Fund allocation of \$300,000; and
- Long Term Borrowing of \$3,090,727.

Using the current Municipal Finance Authority lending rate of 4.5% and a 25 year amortization period results in an estimated annual debt repayment of \$1,378.00 for each of the 157 properties in the REWSA. The actual amount will be slightly different than this depending on the lending rate in place at the time of borrowing.

The costs of undertaking each type of electoral assent are different. Ten thousand dollars (\$10,000) has been allocated to the elector approval process in the REWSA 2024 Operating Budget. These funds are enough to cover the expenses for an AAP or a petition approval process, but not a referendum. A referendum is expected to cost at least \$35,000. The recommended Petition process is expected to incur a total cost of less than \$5,000 for meeting venues and postage.

### **STRATEGIC PLAN ALIGNMENT**

The use of a petition process to gain participating area approval for the River's Edge Water Quality Improvement Plan is consistent with the 2023-2026 Board Strategic Plan as follows:

Water Security - Understand our water resources and their risks, to manage our water resources effectively and sustainably.

### **REVIEWED BY:**

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