

DATE OF MEETING NOVEMBER 18, 2020

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**SUBJECT WATERMAIN REPLACEMENT IN CONJUNCTION WITH RDN  
SEWER PROJECT**

## **OVERVIEW**

### **Purpose of Report**

To present Council with an opportunity to undertake watermain replacements in collaboration with the Regional District of Nanaimo's Departure Bay Force Main sewer project.

### **Recommendation**

That the Finance and Audit Committee recommend Council direct Staff to proceed with watermain replacements along Meadow Lane and Kite Way, with a projected cost of \$550,000.

## **BACKGROUND**

The Regional District of Nanaimo (RDN) is planning to undertake urgent sewer upgrades in the Stephenson Point area in 2021. The RDN needs to replace part of the Departure Bay Force Main sewer (the RDN sewer) that serves most of Nanaimo, conveying flows to the Greater Nanaimo Pollution Control Center (GNPCC). The location of the RDN sewer to be replaced is near/along Meadow Lane, Kite Way, and Planta Road to Hammond Bay Road.

With the location and size of the RDN sewer, the construction is expected to impact the existing watermains in the area. The watermains are asbestos cement (AC) installed in the early 1970's. Although there haven't been problems with the watermains, the disruption from the adjacent sewer construction will put it at significant risk. It is common for older AC pipes to become brittle and experience breaks either during adjacent construction or shortly thereafter, sometimes just after the road is repaved.

Independent of the RDN work, the City has plans to upgrade the watermains along Meadow Lane in 2024, to increase capacity.

## **DISCUSSION**

To ensure the watermains remain reliable and to take advantage of the planned larger construction project, there is an opportunity for the City to replace the watermains, in concert with the RDN project.

The cost to replace the watermains in the area is expected to be approximately \$550,000.

The project is proposed to be funded from Water Reserves that will be reallocated from a number of water projects that have been completed under budget in 2020. |

## **OPTIONS**

1. That Council direct Staff to proceed with the watermain replacements along Meadow Lane and Kite Way, with a projected cost of \$550,000.
  - The advantages of this option are that it will:
    - i. reduce the risk of unplanned disruption to the water service;
    - ii. renew pipes that are at their normal end of life;
    - iii. improve capacity of the watermains for population growth and fire fighting;
    - iv. take advantage of a larger adjacent project for economy of scale; and
    - v. improve certainty for the RDN project scope, risk, and timing.
  - Financial Implications: Funding can be reallocated from completed 2020 water projects.
2. That Council decline to proceed with the project.
  - The advantage of this option is that it defers the cost of replacing the watermains.
  - The disadvantages of this option are:
    - i. There will be considerable risk to the water service both during RDN construction and after.
    - ii. When the watermains are eventually replaced in the foreseeable future, there will be a need to cut new asphalt replaced for the RDN project restoration.
    - iii. When the watermains are replaced in the future, it will be more costly due to the unshared restoration costs and lack of economy of scale.
  - Financial Implications: Unspent funds will be returned to the Water Reserves to fund future water projects. |

## **SUMMARY POINTS**

- The Regional District of Nanaimo is replacing a major sewer in the Stephenson Point neighborhood in 2021.
- The City has an opportunity to replace the watermains adjacent to the Regional District of Nanaimo project at the same time.
- Replacing the watermains will reduce risk to the service, refresh the infrastructure, and improve capacity.

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