



INFORMATION ONLY COUNCIL REPORT

To: Paul Gipps, CAO

Date: June 28, 2022

From: Allen Fillion, Director of Engineering and Operations

File No: 5600-19

Subject: **Rose Valley Water Treatment Plant Update**

STRATEGIC AREA(S) OF FOCUS

As part of Council's Strategic Priorities, the Rose Valley Water Treatment Plant meets the objectives set out in Council's *Invest in Infrastructure* and *Foster Safety and Well-being* pillars.

BACKGROUND

The Rose Valley Water Treatment Plant is the largest construction project ever undertaken by the City of West Kelowna with a budget of \$75M. Once complete, the water treatment plant will provide clean drinking water to approximately 18,000 residents living within the Lakeview, Pritchard/Sunnyside and West Kelowna Estates Water Systems.

This multi-year project consists of four project phases: design, earthworks, treatment plant and reservoir construction, and transmission mains construction. The design and earthworks phases are complete while the treatment plant and storage construction is midway through construction. The final phase, the transmission mains, has recently been tendered and is currently in process of finalizing the contract for work to commence. These are the large diameter pipes that will connect Pritchard/Sunnyside and West Kelowna Estates to the new treatment plant facility.

Water Treatment Plant and Treated Water Reservoir Construction Update

The tender for the construction of the treatment plant and treated reservoir closed on February 18, 2021, and was awarded to Maple Reinders Constructors Ltd. Currently they are approximately halfway through the construction of the facility. The majority of the concrete has been poured, the pre-cast concrete exterior walls are being installed and the building envelope is nearing completion. Work is now shifting to the treatment process of installing valves and piping, electrical, heating ventilation and air conditioning, and pumps.



Figure 1: Water Treatment Plant

The construction climate is currently extremely challenging as there are Covid-19 related supply chain interruptions, a shortage of skilled labour, and inflation is reaching levels that has not been experienced since the 1980s. Despite these challenging market conditions, the City, consultants, and contractor are all working together to minimize the impacts as best as possible as this project remains our top priority. The plant is currently scheduled to be substantially complete in spring, 2023. Substantially complete includes commissioning which will be an incredibly involved process for a plant of this size and will take months to complete. Once the plant is substantially complete, residents will receive drinking water that exceeds Provincial Guidelines for drinking water.

An example of the team collaborating to minimize impacts from current market conditions was altering the delivery approach and having the City directly purchase key pieces of equipment with long delivery times and/or significant escalation implications. This required significant effort from our water treatment team in coordinating purchases, assembling parts of the equipment and delivering to site for the contractor. This approach also considered our long-term operational needs.



Figure 2: Ultraviolet Disinfection

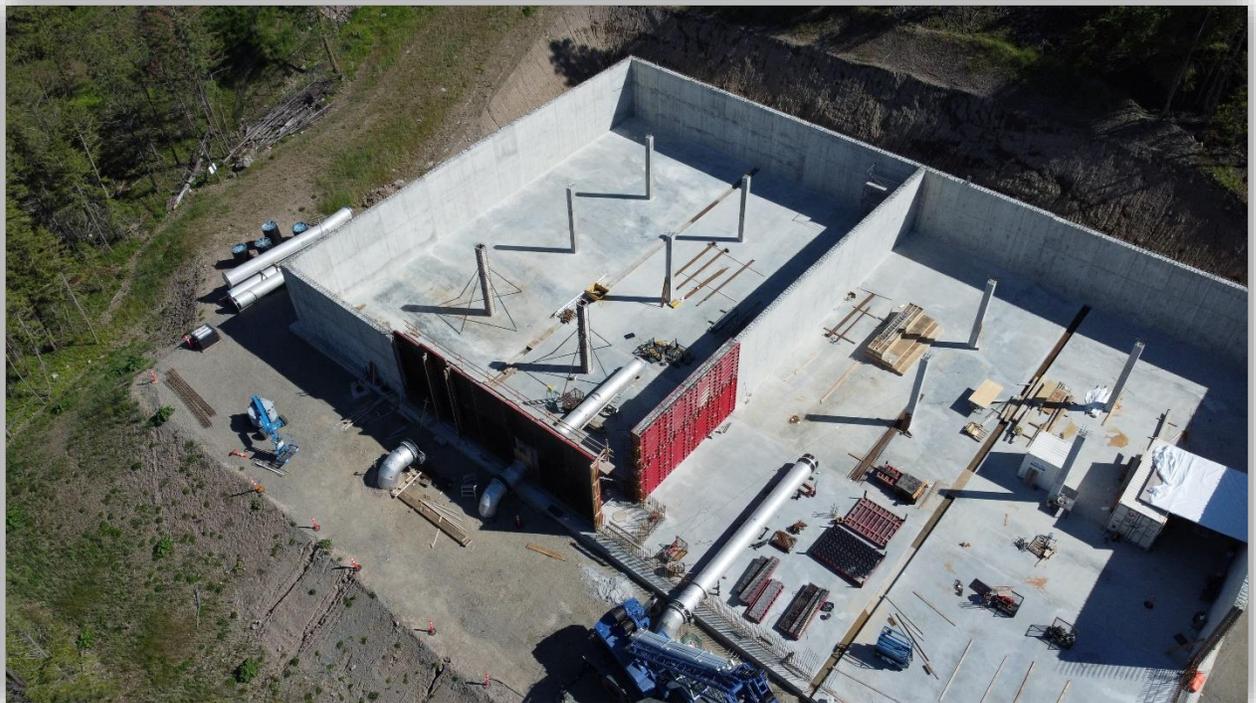


Figure 3: Treated Water Reservoir



Figure 4: Electrical Room

Transmission Mains Update

To provide the West Kelowna Estates and Sunnyside/Pritchard neighbourhoods with treated water from the future plant, two transmission mains are required to be installed. These large diameter mains, 450mm and 500mm, total 4.1 kilometers in length and will deliver water from the new treatment plant to existing water storage reservoirs in the distribution system (refer to Figure 5). These mains will deliver safe drinking water to approximately 7,100 users.

The design of the transmission mains was completed in spring of 2022 and the works were tendered on May 3, 2022, in accordance with West Kelowna’s purchasing policy. The tender closed on June 14, 2022, with only one bid being received which is indicative of the extremely challenging construction market. As part of the City’s dig once philosophy, the tender included drainage improvements on Rosewood Drive, pedestrian improvements on Westlake Road, and a culvert replacement on Westlake Road. City staff are currently collaborating with the contractor to identify cost saving opportunities to

ensure we can achieve our \$75M budget. Once the terms of the contract are finalized a further update will be provided.

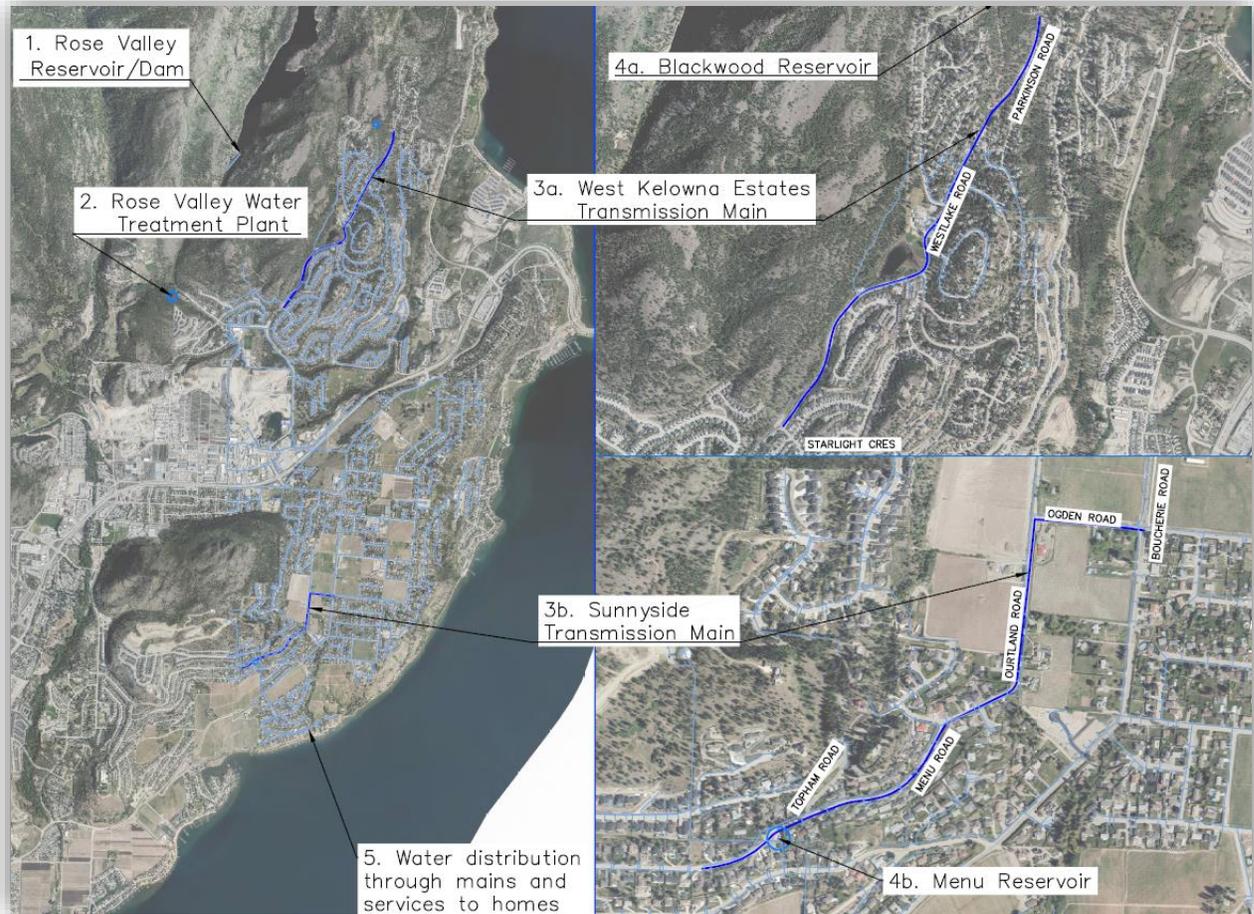


Figure 5: Transmission Mains Locations

FINANCIAL IMPLICATIONS

The total project budget for all associated works for the water treatment facility is \$75,000,000. Staff are confident that collaborating with the contractor to identify cost saving opportunities on the transmission mains project the overall budget will be achievable. Once the contract terms are finalized, a further update will be provided with a detailed budget analysis.

REVIEWED BY

Warren Everton, Director of Finance/CFO

Shelley Schnitzler, Legislative Services Manager/Corporate Officer

APPROVED FOR THE AGENDA BY

Paul Gipps, CAO

PowerPoint: Yes No