
TOWN OF EASTEND
WTP, RAW WATER RESERVOIR & INTAKE UPGRADES

BCL File #103.02-7B

July 14, 2021

General Progress to Date

In June, project progress included:

- SaskPower completed the main power service for the WTP and stations.
- Delco Water has begun loading the membranes into the ultrafiltration and nano filtration units and started up the processes for testing.
- Liner cover (sand) material, erosion protection, rip rap and seeding were completed on the inside faces of the earthen reservoir.
- Water was pumped from the river into the reservoir for use in the processes.
- The truck fill concrete pad is in place and the landscaping in front of the WTP is nearing completion.
- The roadway structure area has been prepared for construction.

Overall, construction was delayed by the SaskPower service installation. Most equipment is now available to be started up and the official start-up and commissioning activities will be beginning the third or fourth week of July.

During the next work period (month), construction is expected to include the final start-up, commissioning, and turnover of the water treatment plant project.

Progress Certificate

Progress No. 14 is certified and represents work completed to June 30, 2021. Westridge Construction Ltd. is eligible for payment in the amount of \$142,604.18.

Westridge provided their required WCB clearance and Statutory Declaration paperwork along with their invoice.

Payment in the amount of \$14,274.69 should also be made to the holdback trust account, as required by the Builder's Lien Act. Total holdback to date should be \$611,386.02 plus taxes.

Construction Schedule

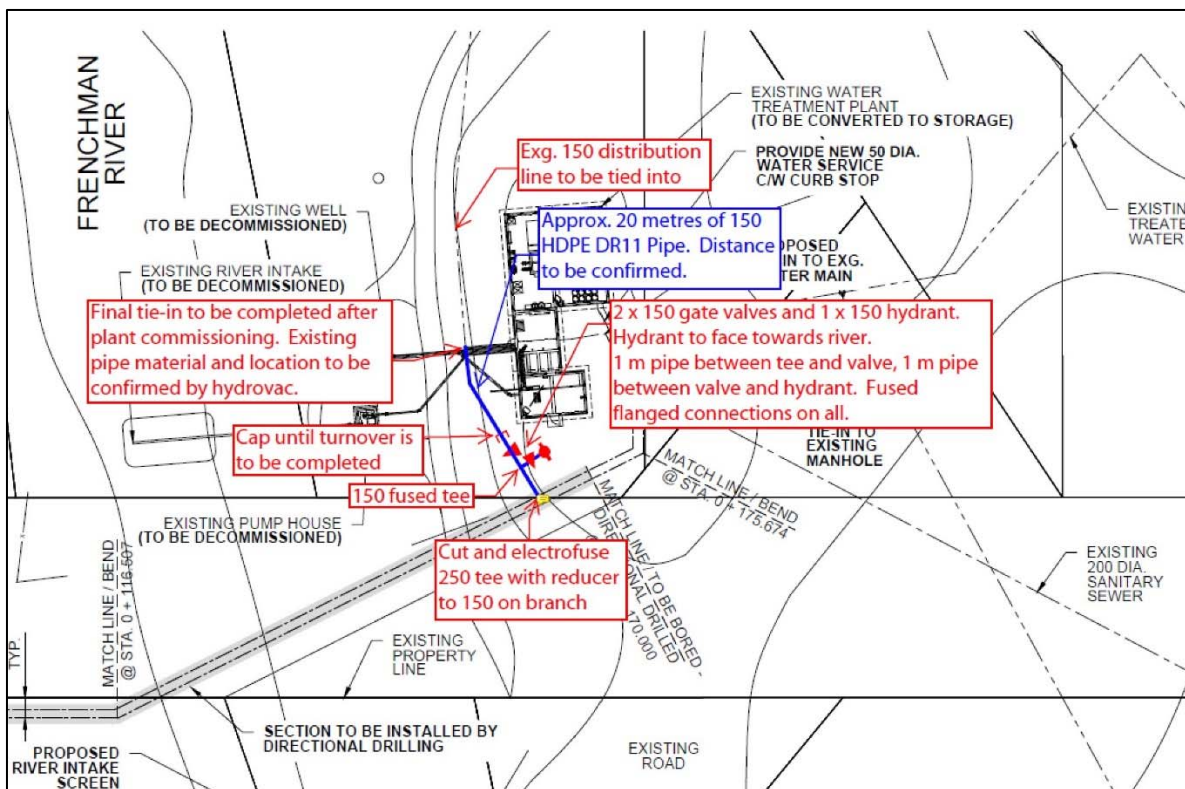
An updated construction schedule was provided by Westridge on May 28, 2021. According to the schedule, work was generally on track but has been delayed by the SaskPower installation delays. Schedule updates will continue to be provided, but equipment start-up and commissioning is now underway with project completion scheduled for later this month.

Contemplated Change Orders

Two more change orders are being considered since the last report:

Contemplated Change Order (#7)

Through the site coordination with the Town of Eastend operators, it was determined that an additional distribution main tie-in and flushing hydrant would be required to maintain the existing flow paths and be able to isolate the upper reservoir on the hill south of town. The tie-in will include a new tee to be tied into the new distribution line, two gate valves, a hydrant, approx. 20 metres of 6" pipe and coordination work to tie that into the existing main behind the existing WTP.



The underground contractor provided an approximate price of \$51,592.09 plus hydrovacating the existing lines to complete the work, plus Westridge’s markup plus taxes. This would put the CCO in the order of \$60,000.00 plus taxes.

NOTE: BCL has now compiled the estimated cost to completion for the project including any savings on the unit prices and projected overages. It is estimated that Westridge’s current Contract value to complete construction is at \$6,801,000 – approximately \$14,000 above their original tendered price. The extra costs (change orders) to date have been in the order of \$85,800 due to unforeseen changes during construction. Conversely, there have also been about \$70,000 of ‘savings’ from unused unit price quantities and unused Prime Sum allowances.

Westridge and BCL have been working to keep the project under construction budget but has now slightly exceeded that. The above CCO would be an additional cost to the Town but would provide a distribution system that operates exactly like the existing.

While the overall cost of \$60,000 to complete the extra work initially seems high, BCL evaluated the work based on Westridge's original tender prices for the distribution mains and adjusted slightly for the different sizes of items. Based on the original tender prices, the extra work would be as follows:

Item	Unit Price	Quantity	Total Cost
150 mm Distribution Main	\$300 / lin.m. *	25 m	\$7,500
Gate Valve	\$7,500 each	2	15,000
Tie-in to Existing Water Main	\$10,500 each	1	10,500
Bend	\$1,000 each	1	1,000
Reducer 250 to 200 to 150 **	\$1,500 each	1	1,500
Hydrant **	\$12,000 each	1	12,000
Remobilization for extra work ***	\$7,500		7,500
Extra hydrovac work for existing	\$2,500		2,500
Total Estimated Cost			\$57,500

* 150 mm pipe not used on the project; was estimated from other prices and increased for the smaller quantity.

** none included in the original project, estimated from other similar projects.

*** estimated by QCE – seems reasonable for crew and equipment mobilization and demobilization.

As shown, the overall cost appears to be an accurate reflection of the work required and if the Town can fund the extra work, it would be recommended.

Town Input Required: If the Town would like to proceed with the work, please advise BCL and Westridge as soon as possible as the coordination work should happen quickly so the distribution system turnover to the new plant can be completed.

It should also be noted that the addition of the hydrant at the existing plant location will also provide an improved additional flush point for the future operations of the distribution system.

Contemplated Change Order (#8)

Again, through the site coordination with the operators, it was brought up that the operators would like to maintain the upper reservoir level sensor that is currently in the existing reservoir. The new system operates on pressure, but the electrical and automation contractors will evaluate options for relaying the existing signal back to the new WTP. Pricing will be confirmed once the electrical engineer looks at some options for tying this back to the WTP.

Testing

No further test results have been received since the previous report.

Photos



Truck fill slab and bollards in place.



Nearing final grading around WTP to start roadway construction.



Effluent pumping station.



Reservoir intake pumping station.



River intake pumping station.



Erosion protection and seeding on interior face of raw water reservoir.



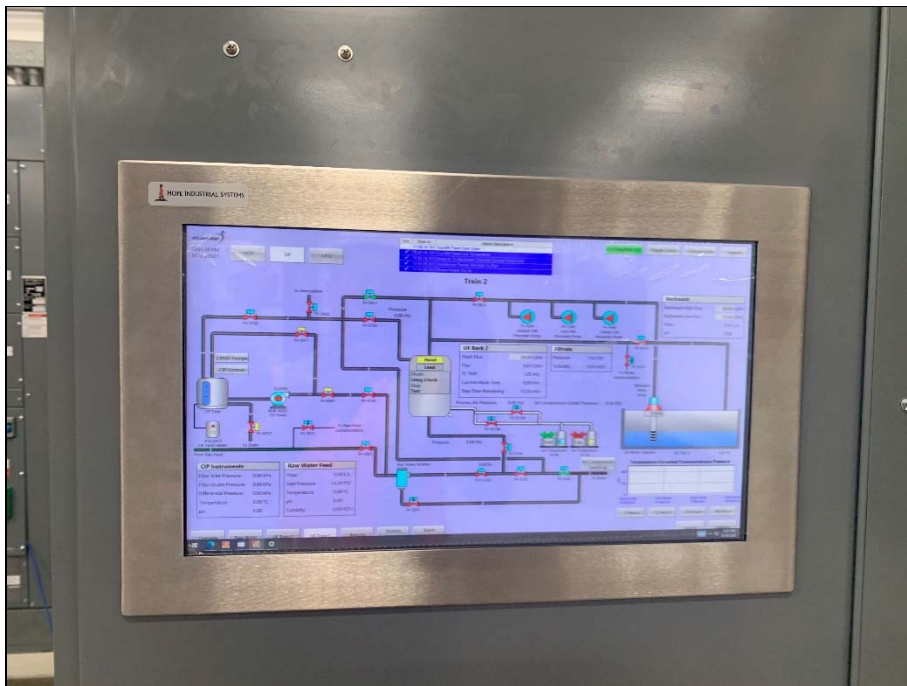
Chain link fencing starting; materials on site.



Ultrafiltration membranes (white vessels) are now loaded up and starting to filter water.



Nanofiltration membranes on site and ready to be loaded (have since been installed).



Control panel is now active and Delco working on testing programming.

Prepared by: Matthew Feige, P.Eng.