

CENTRAL PEACE REGIONAL WATER SUPPLY SYSTEM PHASES 1 & 2

PROJECT OVERVIEW

January 04, 2023

ENGINEERING OVERVIEW

1. Status of preliminary engineering includes the following:
 - .1 Senior Geotechnical Engineer is working on the excavation implementation concept and structural considerations for the 27 m (90 ft) deep raw water pumping station wet well. The completed geotechnical report for the river intake and raw water pumping station is being referenced by the other members of the Project Team. Copy of the report was forwarded to Alberta Environment as requested in support of the Water Act Approval application.
 - .2 Support for the regulatory approval applications remains on-going for the Public Lands Act and Water Act Approvals. The most recent meeting between the Project Team and Alberta Environment occurred on December 12, 2022. The next meeting with Alberta Environment is scheduled for January 16, 2023.
2. **Raw Water Pumping Station Land Acquisition:** Subdivision approval process is underway for the final land transfer of the Raw Water Pumping Station parcel. This starts with approval by Birch Hills County administration, and requires approval by Alberta Transportation because of proximity to the Highway, before the Legal Surveyor can file the subdivision with Alberta Land Titles for final registration. Alberta Transportation has reviewed the subdivision and have verbally advised that they will approve the raw water pumping station subdivision. Alberta Transportation has signed off on the Publics Works Plan Form to accommodate the access road plan registration on their land. The TransAlta Utility Right of Way agreement for the pipeline portion across their lands was registered at Land Titles.
3. **Municipal Consent for Land Acquisition:** The consents that have been acquired by Saddle Hills County from the other Municipalities include:
 - From M.D. of Fairview, to acquire the lands required for the River intake structures within the municipal boundaries of the M.D. of Fairview
 - From Birch Hills County, to acquire the lands required for the Raw Water Pumping Station facility within the municipal boundaries of Birch Hills County
 - From M.D. of Spirit River, to acquire the lands related to the future Regional Hub Water Treatment Plant site within the municipal boundaries of the M.D.

Saddle Hills County will next require consents from the M.D. of Spirit River for the executed Utility Right of Ways acquired by the County for the raw water pipeline from the private landowners along the alignment. This Municipal Consent can be procured from the M.D. when the substantial portion of the private land Utility Right of Way agreements have been obtained.

4. **Future Regional Hub Water Treatment Plant Site Land Acquisition:** The finalized assessment report providing technical review of the land purchase was previously forwarded to the County. The County had noted concern over the potential cost for wetlands compensation identified preliminarily by the Environmental Consultant's report for the Regional Hub purchased land parcels. MPE followed up with the Environmental Consultant, Fiera Biological Consulting, about the likely compensation scale for the wetlands at the Regional Hub site. Although the final classification of the wetlands will not be determined until the field survey is completed at the site during spring 2023, Fiera advised that the wetlands would more than likely be categorized in the lower compensation classifications for wetlands (meaning lower cost of compensation to construct at the site). Any high value compensation designation for the wetland areas is unlikely.
5. **Public Lands Act Dispositions:** The disposition application packages required for the permanent occupation of Crown land by the River Intake systems and the Raw Water Pipeline previously submitted in July 2022 are in review by the Province. Formal acknowledgement from the Province was received by the County on November 23, 2022 that the application information requirements meet the Department's completeness criteria for applications. Some required minor revisions were subsequently noted by the Province which have been captured on the Disposition plan.
6. **Pipeline Revised Alignment Land Agreements:** The Land Agent is actively meeting with the affected landowners about acquiring the right of ways across their properties for the revised pipeline alignment from the top of the River valley to Spirit River and Rycroft. The Land Agent has acquired 19 of the 46 agreements required (approximately 40%). The Land Agent had some resistance on the compensation amount from one landowner so far, but continues to chase meetings with the remaining landowners to get as many of the other agreements in place as possible.
7. **Geotechnical Investigation – Subconsultant:** The Geotechnical Subconsultant for the Peace River valley hill, Thurber Engineering, is providing geotechnical support for the HDD installation of the steel pipe section of the pipeline alignment that climbs out of the Peace River valley.
8. **Environmental Assessments - Terrestrial:** The environmental assessment information compiled by the Terrestrial Biologist, Fiera Biological Consulting for the Regional Hub land parcels has been incorporated into the overall technical review for the Regional Hub sites. County concerns over the potential wetland compensation costs for the Regional Hub sites has been reviewed with Fiera and the compensation scale will likely be on the lower end of wetland compensation classification. Fiera will provide support for any of the supplemental environmental information requests raised by the Water Act Approval application review for the project. Fiera will also provide any follow up disposition support for the environmentally sensitive areas along the steel pipe HDD installation route up the Peace River valley hill. Coordination to facilitate winter construction for the steel pipe installation on the hill that respect the hard dates for the Restricted Activity Periods (RAP) will require support from Fiera to avoid the period for the construction RAP window stipulated by Alberta Environment.
9. **Environmental Assessments - Aquatic:** At the November 21, 2022 project meeting with Alberta Environment, the Department's Senior Fisheries Biologist inquired on a specific supplemental information request following his review of the previously submitted Fish and Habitat environmental assessment report, related to monitoring of the possibility for fish entrainment by the river intake system. The formal inquiry from Alberta Environment has not yet been received. But when it is received, it shall be referred to our Aquatic Biological Subconsultant. The Fish and Habitat environmental assessment report completed by the Mainstream Aquatics was the primary supporting documentation for the Provincial Water Act Approval as well as the Federal DFO application. The Principal Biologist for Mainstream Aquatics has retired as of July 31, 2022. The new supporting Aquatic Biological Subconsultant for the project for subsequent work shall be Ridge Environmental Planning Ltd.

10. **River Engineering:** The Hydraulic Subconsultant for the River Intake, Northwest Hydraulic Consultants (NHC), continues to provide engineering support related to the intake and pumping station design. The completed report by the Hydraulic Subconsultant was included in the Navigable Waters application which was recently approved for the river intake. The submitted report is a major component that supports the application package for the Water Act Approval, and NHC is assisting to provide some of the supplemental information that has been requested by Alberta Environment in the follow up to the original application submission.
11. **DFO Approval Application:** The application for the River intake was previously submitted to the Department of Fisheries and Oceans for approval in March 2022 and was subsequently forwarded by the Department to the Fisheries Protection Program Regulatory Review unit in Winnipeg for site specific review. A scheduled meeting on the application was held with DFO on October 20, 2022 to review the Approval application and we are awaiting further comments from the Department. Following our most recent meeting with Alberta Environment in November 2022, the Alberta Environment Senior Fisheries Biologist advised that he may be reaching out to the DFO Fisheries Biologist to coordinate review of the river intake.
12. **Water Act Approval Applications:** The Water Act applications for the Approval to Construct for the River Intake systems and the Water Diversion licence for withdrawal of water from the Peace River were previously submitted and are in review by Alberta Environment. Follow up requests for supplemental information received from Alberta Environment are being completed by MPE Engineering. The Project Team's most recent meeting with Alberta Environment was in December 2022, with next meeting scheduled for January 16, 2023.
13. **Historical Resources Act Approval Application:** The Archaeological Subconsultant, Circle CRM, has completed the Historical Resources Impact Assessment (HRIA) stipulated by the Province. The Archaeologist has submitted the final version of the report to the Provincial Regulator, Alberta Culture. The report recommends to the Province that the project be granted Historical Resources Act approval.
14. **Navigable Protection Act Application:** The Notice of Works application for Navigable Waters was previously submitted to Transport Canada for the river intake structure and notification of approval was received on December 06, 2022 by the County from Navigable Waters for the temporary coffer dam during the construction and the permanent river intake.
15. **Indigenous Consultations:** The Scott Land Indigenous Consultation group has received an Adequacy Assessment Decision for the previous Consultation submissions. First Nations Consultations were coordinated by Scott Land and Lease's Indigenous Consultation department for the Consultations required by the Public Lands Act Disposition application and the Consultation stipulated by the Federal Grant requirements for the project. For the Water Act Pre-Consultation Assessment, the Aboriginal Consultation Office (ACO) confirmed adequacy and no additional consultations required.
16. **Steel Pipe Design for Peace River Valley Hill:** The HDD Specialist Subconsultant, Blue Fox Engineering, is providing assistance with the steel pipe installation contract and has provided assistance with preliminary cost estimates for the construction. Blue Fox is providing engineering support for the steel pipe HDD tender documents, evaluation of tender submissions, and resident services during construction review. The draft set of design drawings for the Steel Pipe HDD were forwarded to the County for review. Final changes are being incorporated into the tender documents prior to issuing for tender in early 2023.

17. **Pre-Qualification of Specialist HDD Contractors:** For the specialized HDD installation of the steel pipe section of the Raw Water Supply Line that climbs out of the Peace River valley, contractor pre-qualification is an option that could be completed in advance of tendering the work. A Request for Qualification (RFQ) document was developed for this contractor pre-qualification purpose by MPE Engineering with input from the HDD Specialist, Blue Fox Engineering incorporated into the RFQ document. There were some reservations from the County on whether to proceed with the RFQ process in the current market with rising construction cost due to concerns over the possibility of limiting bidder competition if some qualified contractors either did not meet the RFQ requirements, or could be caught in a timing conflict that may inhibit later decision to bid. So at this time the RFQ has been cancelled.
18. **Electrical Service to the Pumping Station:** Quotation for servicing was requested from ATCO by the Electrical Engineering Team. It has been confirmed with ATCO Electricity, that the route for servicing of the Raw Water Pumping Station facility shall be from the Village of Rycroft which is the nearest connection point for the required three-phase power supply. A ballpark estimate cost quotation for the power servicing has been received by the County from ATCO which is high in cost. The MPE Electrical Group have been requested to investigate possible options for reducing the servicing cost amount. This includes accounting for future pumping volume increases that should be reflected in the ATCO service installation cost. The question of whether fiber optic lines could also be installed on the power poles together with the electrical cables was raised by the County and this question was referred to ATCO for response. ATCO has acknowledged the request and are reviewing for response. Upon follow up with ATCO, the Utility Provider had some additional questions for the Electrical Team. A meeting has been proposed to ATCO by the Electrical Team.

NEXT STEPS

19. Complete the preliminary engineering and continue with the detailed design for the project including the drafting of revised plan and profile drawings for the pipeline, work with Land Agent and County Staff on landowner agreements for pipeline right of ways, complete the finalization of the Pumping Station land transfer and subdivision registration with the Land Agent, continue to hold subsequent meetings with Alberta Environment for the project and the approval submissions, continue with the river intake and pumping station design, conceptual wet well installation design, and excavation design with the geotechnical group, continue with Federal and Provincial regulatory approvals, proceed with tendering of steel pipe HDD contract for autumn 2023 construction, coordinate scheduling of steel pipe HDD winter construction to adhere to the hard dates imposed by Alberta Environment for the Restricted Access Period for garter snake hibernacula, Water Act applications supplemental information requested by Alberta Environment, confirm with Archaeological Subconsultant the Historical Resources Impact Assessment approval by Alberta Culture.

Haj Oshiki, P.Eng.