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CENTRAL PEACE REGIONAL WATER SUPPLY SYSTEM PHASES 1 & 2

PROJECT OVERVIEW

April 05, 2023

ENGINEERING OVERVIEW

1. Status of preliminary engineering includes the following:

   .1 Senior Geotechnical Engineer is working on the foundation design and drawing details for the river intake structure along with the excavation design and the shoring design for the 27 m (90 ft) deep raw water pumping station wet well. The previously considered shoring approach using soil anchors and shotcrete was deemed to be not feasible based on the required length of the soil anchors, so the preferred excavation shoring method shall be to incorporate a secant pile wall shoring system. The previously completed geotechnical report for the river intake and raw water pumping station is being updated based on the detailed further analysis for the wet well excavation stability. The footprint limit for the river intake coffer dam has been increased in size to allow for the construction of the temporary coffer dam using rock and earth fill material in the event that a sheet pile coffer dam approach may not be constructable.

   .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 was held on March 06, 2023. The next meeting with Alberta Environment is scheduled for April 17, 2023.

2. **Raw Water Pumping Station Land Acquisition**: The subdivision approval process which starts with Birch Hills County (also requires approval by Alberta Transportation because of proximity to the Highway) is progressing towards completion for the final land transfer of the Raw Water Pumping Station parcel. One additional consent for the Road Plan was still required from Birch Hills County to fulfill the documentation required to finalize the approval. When this document is received at the Legal Surveyor, they can then file the subdivision with Alberta Land Titles for final registration. The time frame following submission of the registration at Land Titles is currently two to three months before the land shows up as being transferred. The TransAlta Utility Right of Way agreement for the pipeline portion across their lands has previously been 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.

Municipal Consent for Land Acquisition (Cont'd)

For the next Municipal Consents, Saddle Hills County will require consents from the M.D. of Spirit River for the executed Utility Right of Ways acquired by the County for the raw water transmission line 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. A consent from the M.D. may also be required in the event that an expropriation action is taken by Saddle Hills County against one of the landowner holdouts along the pipeline alignment.

4. **Regional Hub Water Treatment Plant Site Land:** Concern over the potential cost for wetlands compensation identified preliminarily by the Environmental Consultant's report for the Regional Hub purchased land parcels had been noted by the County. Although the final classification of the wetlands will not be determined until the field survey is completed at the site during spring 2023, Fiera Biological Consulting 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. The site review to confirm the wetlands classification is tentatively scheduled for mid-May 2023. Geotechnical site drilling on the land parcel was completed in March 2023. The material encountered during the drilling consisted of clay and clay till materials and appeared to be consistent across the parcel.

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. The Land Management Specialist at Alberta Environment has been following up with the various referrals sent out to the other specialists that are responsible for reviewing the applications. Additional information requested by Alberta Environment at previous meetings was compiled and submitted. This included a request from Alberta Environment for an overall map of the pipeline alignment identifying all of the wetlands and watercourse crossings. This overall map may require adjustment and re-submission subject to the pipeline alignment changes that may be required following recent problems with procuring pipeline right of way agreements along the previous route revision.

6. **Pipeline Alignment Land Agreements:** The Land Agent has met with all of the affected landowners about acquiring the right of ways across their properties for the previous pipeline alignment revision from the top of the River valley to Spirit River and Rycroft. In total there were two title holders that would not sign. The landowner holdout located adjacent to the Spirit River raw water storage ponds was not a problem as the pipeline can be shortened to avoid his property and connect to the raw water storage pond at the north limit of the pond site. However, the other landowner holdout has a larger impact on the pipeline route. Saddle Hills County had a meeting with the other landowner to go over his concerns and it did not appear that he would be willing to sign the agreements for the right of ways across his properties. This affects the portion of the pipeline that occurs between TWP Road 795A and TWP Road 790. An alternate alignment for the pipeline that would be routed to avoid that landowner's properties has been proposed by Saddle Hills County and is being pursued. However, in the event that there are problems also with the alternate alignment, Saddle Hills County may be required as a last measure to take up an expropriation action against the landowner holdout along the previous alignment. In anticipation of the possible outcome, the County had a meeting last month with the Land Agent to review the legal requirements for expropriating land.

7. **Geotechnical Investigation – Subconsultant:** The Geotechnical Subconsultant for the Peace River valley hill, Thurber Engineering, is providing the geotechnical support for the HDD installation of the steel pipe section of the pipeline alignment that climbs out of the Peace River valley. The finalized Thurber geotechnical report is included as an appendix for the steel pipe HDD contract.

8. **Environmental Assessments - Terrestrial:** County concern over potential wetland compensation costs for the Regional Water Treatment Plant sites was previously reviewed with the Terrestrial Biologist, Fiera Biological Consulting, and the compensation scale will likely be on the lower end of wetland compensation classifications. Final valuations will be provided by Fiera following their field surveys that will be completed after spring runoff this year. With the late spring melt this year, Fiera has advised tentative schedule for the field survey to be completed in mid-May 2023. Fiera is providing support for any of the supplemental environmental information requests raised by the Water Act Approval application review and Public Lands Act Approval application review for the project. This includes providing the wetland boundaries along the pipeline alignment (and any potentially revised alignment sections) requested by Alberta Environment at a recent meeting. Fiera will also provide any follow up disposition support for the Key Wildlife and Biodiversity Zone 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:** Previous formal inquiry from Alberta Environment Senior Fisheries Biologist related to monitoring of the possibility for fish entrainment by the river intake system was referred to our Aquatic Biological Subconsultant and his response was forwarded to Alberta Environment. A similar inquiry was subsequently received from the Federal Department of Fisheries and Oceans (DFO) following our meeting with them in February 2023. Response has been provided back to DFO for their recent inquiries. 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 submitted report by the Hydraulic Subconsultant comprises a major document in support of 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 ups to the original application submission. The recent information request from the Alberta Environment River Engineer was reviewed by NHC and NHC's response was provided back to Alberta Environment. NHC will also be engaged to provide any support required for the increased size coffer dam footprint in the event of using rock and earth fill materials for the temporary coffer dam for the river intake.

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 were awaiting further comments from the Department. Upon reaching out to DFO again, another meeting was scheduled, which was held with the Department on February 21, 2023. Additional questions from the DFO review were received following that meeting that have been provided initial response. The most recent response was sent in March 2023.

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. Updated draft versions of both the Water Act Approval and the Water Diversion licence were received from Alberta Environment earlier in March which were both reviewed by the group at the March 06, 2023 meeting with Alberta Environment. Follow up requests for supplemental information requested by Alberta Environment have been completed by MPE Engineering. The Project Team's most recent meeting with Alberta Environment was on March 06, 2023, with next meeting scheduled for April 17, 2023.

13. **Historical Resources Act Approval Application:** Historical Resources Impact Assessment (HRIA) stipulated by the Province was completed by the Archaeological Subconsultant, Circle CRM, and the final version of the report has been submitted 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 previously submitted to Transport Canada for the river intake structure was approved (December 06, 2022) for the original temporary coffer dam during the construction and the permanent river intake. A subsequent notification will be required for the potential increased footprint of the coffer dam to allow for rock and earth fill coffer dam construction.

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. Saddle Hills County also received confirmation from the Federal Government in January 2023 that Infrastructure Canada considers the Indigenous consultation requirement for the project to have been met.

16. **Steel Pipe Design for Peace River Valley Hill:** The HDD Specialist Subconsultant, Blue Fox Engineering, has continued to provide assistance with the steel pipe installation contract as the contract has been prepared for tender. Blue Fox has provided engineering support for the steel pipe HDD tender documents, and shall provide support for evaluation of tender submissions, and resident services during construction review. The finalized set of tender documents for the Steel Pipe HDD contract were forwarded to the County for review in advance of tendering the contract and the County has provided their comments. The County comments are being addressed on the final tender documents. MPE shall be available to answer any questions from Council on the steel pipe HDD Contract at the April 11, 2023 Council Meeting.

17. **Pre-Qualification of Specialist HDD Contractors:** Previous contemplation to undertake a Request for Qualification (RFQ) process for the specialized HDD installation of the steel pipe section of the Raw Water Supply Line that climbs out of the Peace River valley, was abandoned. There were 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. The RFQ has since been cancelled.

18. **Electrical Service to the Pumping Station:** Quotation for servicing requested from ATCO by the Electrical Engineering Team in 2022 confirmed 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. The ballpark proposal cost quotation for the power servicing received by the County from ATCO was very high in cost. Representatives from the County and MPE met with ATCO in Edmonton on February 01, 2023 to review the potential for decreasing the servicing cost for the Raw Water Pumping Station. The meeting was successful as the County was able to convince ATCO to revisit their servicing cost and provide a substantial discount. The adjusted servicing amount was received from ATCO on March 10, 2023 with an 80% load investment from ATCO as an update on the previous 60% load investment. This has resulted in a cost reduction of approximately $164K to the previous ballpark proposal. The County has initiated commencement of the ATCO design procedure with acceptance of the preliminary quotation. The question of whether fibre optic lines could also be installed on the power poles together with the electrical cables was raised by the County and the County remains in discussions with ATCO for potentially proceeding with the fibre work.

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 procuring the balance of the landowner agreements for pipeline right of ways, address potential expropriation of land as required, complete the finalization of the Pumping Station land transfer and subdivision registration with the Land Agent, continue to hold meetings with Alberta Environment for the project and the approval submissions, continue with the river intake and pumping station design, and also wet well installation design, and excavation design with the geotechnical group, continue with Federal and Provincial regulatory approvals, tendering of steel pipe HDD contract this spring 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 the Key Wildlife and Biodiversity Zone, provide responses to Public Lands Act and Water Act applications supplemental information requests from Alberta Environment as they are received, confirm with Archaeological Subconsultant the Historical Resources Impact Assessment approval by Alberta Culture, coordinating with ATCO for the power servicing to the Raw Water Pumping Station.

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