

CENTRAL PEACE REGIONAL WATER SUPPLY SYSTEM

PROJECT OVERVIEW

May 18, 2022

PRELIMINARY ENGINEERING OVERVIEW

1. Status of preliminary engineering includes the following:
 - .1 After MPE's Geotechnical Group added the CN Geoform 2 geotechnical requirements to the Transmission Line Report for the pipeline crossing of the CN Rail right of way (near Hwy 49 and RR 60), the only remaining item for finalizing the report is the additional borehole at the top of the Peace River valley hill. Senior Geotechnical Staff are finalizing recommendations on the Raw Water Pumping Station (deep) wet well construction and the use of secant or tangent pile walls for the wet well structure deep excavation. Stability modelling for the wet well slope is being completed along with stability review of the access road down to the river intake.
 - .2 A track mounted drill rig has been tentatively scheduled for the additional geotechnical borehole requested by the horizontal directional drilling (HDD) specialist subconsultant, Blue Fox Engineering, at the top of the valley exit location for the steel pipe HDD in order to finalize the profile design. Drilling shall be scheduled after completion of seeding for the quarter section by the land occupant. The County was able to provide a great deal of help to the Land Agent to negotiate the land damage compensation claim for the previous access on the property in advance of obtaining authorization from the land occupant for access again onto the site by the drill rig for the new borehole. A cheque shall be issued to the land occupant by MPE Engineering on behalf of the project for the damage settlement. The question of scheduling the HDD installation of the steel pipeline up the hill during the winter season that was raised by the County is being reviewed with Alberta Environment by the project Terrestrial Biologist. The restricted activity periods mandated by Alberta Environment for the environmentally sensitive areas (ie. Garter snake hibernacula) along the pipeline installation route is being revisited with the Department for the permissible timeframes for construction.
 - .3 Site plan drawings for the Raw Water Pumping Station site are being developed.
 - .4 Additional feedback has been received from the County related to the Technical Memorandum for proposed adjustment of the alternate cross-country pipeline alignment at the north end of the project to avoid a deep ravine crossing and leave more open area for future raw water settling pond facilities. The plan view of the adjusted pipeline route is being drafted for County review. The County has also received approval from the MD of Spirit River on the alternate pipeline alignment to use existing MD right of ways for portions of the pipeline installation south of Highway 49, which has been incorporated into the pipeline design.
 - .5 The County has proposed another quarter section parcel for consideration for the Technical Memorandum that was provided to identify the Regional Hub preferred locations. Area land values shall factor into the decisions for potential future purchase.

2. **Raw Water Pumping Station Land Acquisition:** The Land Agent, Scott Land and Lease has forwarded a draft legal survey to TransAlta of the land acquisition parcel for the Raw Water Pumping Station site. Scott Land and Lease shall schedule another meeting with TransAlta for next week. The request for information by TransAlta for the Geotechnical Reports related to the landslide assessments for the site has been approved by the County and a standard information agreement has been forwarded to TransAlta for signoff in advance of forwarding a copy of the Thurber Engineering geotechnical assessment.
3. **Public Lands Act Dispositions:** The Land Agent, Scott Land and Lease, is assembling the required information for the Disposition applications required for the permanent occupation of Crown land by the River Intake systems and the Raw Water Pipeline. A draft copy of the site plan drawings for the submissions has been completed by Borderline Surveys, revisions to the drawings are being incorporated. The Public Lands Act submission will trigger the need to proceed with First Nations Consultations for this scope of work.
4. **Pipeline Revised Alignment Land Agreements:** The Land Agent shall be engaged to proceed with the landowner easement negotiations once alignment options are confirmed with the County. A revised plan view of the adjusted pipeline alignment shall be forwarded for County review. The County has advised that landowner agreement for the revised pipeline alignment easements should be confirmed prior to fully engaging any significant re-work (especially for Environmental Subconsultants, etc.).
5. **Geotechnical Investigation – Subconsultant:** It shall be confirmed whether the Geotechnical Subconsultant for the Peace River valley hill, Thurber Engineering, shall be required to provide additional engineering to modify the no drill zone delineated areas of the finalized HDD design that has been re-adjusted for the steel pipe section of the pipeline alignment that climbs out of the Peace River valley.
6. **Environmental Assessments - Terrestrial:** The Terrestrial Biologist, Fiera Biological Consulting, has contacted Alberta Environment again about the restricted access periods for the environmentally sensitive areas (garter snake hibernacula) along the steel pipe HDD installation route up the Peace River valley hill, with the hope that approval may be obtained for construction during the winter hibernation season provided that the installation is completed by drilling well below the hibernation zone for the snakes. We have not yet received response related to the follow up request. Fiera Biological shall be engaged again at the appropriate time to undertake the environmental assessments along the routes for the pipeline alignment changes adopted by the County for the HDPE level ground portion of the pipeline, once the routes are finalized. Obtaining confirmation first of landowner acceptance of the pipeline route has been recommended by the County.
7. **Environmental Assessments - Aquatic:** Additional work will be required by the Aquatic Biologist, Mainstream Aquatics, to revise the Fish and Habitat environmental assessment report sections related to the pipeline alignment that is being changed to the alternate (cross country) alignment for the revised creek crossing locations when the alignments are finalized with the County. The Fish and Habitat environmental assessment report completed for the Peace River intake was previously submitted to the Department of Fisheries and Oceans (DFO) together with the application for the River intake approval.
8. **River Engineering:** The Hydraulic Subconsultant for the River Intake, Northwest Hydraulic Consultants (NHC), shall continue to provide engineering support related to the intake and pumping station design. The completed report by the Hydraulic Subconsultant was also previously attached to the DFO application submission for the intake approval.
9. **DFO Approval Application:** The application for the River intake was previously submitted to DFO for approval and acknowledgement from the Department was received for the submission.

10. **Water Act Approval Applications:** The approvals required under the Water Act include the Approval to Construct for the River Intake systems and the Water Diversion licence for withdrawal of water from the Peace River for the G5 Municipalities. The form work information for the Water Act applications is being processed for the application submissions through the new Alberta Environment Digital Regulatory Assurance System (DRAS). Saddle Hills County has been designated as the managing partner on behalf of the Central Peace Region G5 Municipalities for the Alberta Environment Water Act applications. Copy of the completed Pre-Design Report for the project previously forwarded to Alberta Environment as information was acknowledged by the Department. The Water Act submissions will trigger the need to proceed with First Nations Consultations for this scope of work.
11. **Historical Resources Reviews:** The Historical Resource application submission shall be coordinated with the Archaeologist Subconsultant, Circle CRM when the project details are finalized to the point required by the applications process.
12. **Indigenous Consultations:** First Nations consultations are at this time required for the Public Lands Act Disposition application and the Water Act Application. The First Nations Consultations shall be completed by Scott Land and Lease's Indigenous Consultation department as a coordinated effort for the various Consultations that are mandatory for the corresponding project required items. Initial discussions have been commenced with Scott Land and Lease for starting coordination. Aboriginal Consultation Office (ACO) consent forms will be required from Saddle Hills County and Birch Hills County with signoff to interact with the Consultation Office on their behalf.

NEXT STEPS

13. Complete the preliminary engineering and continue with the detailed design for the project including the changes required for the pipeline alternate alignment implementation, work with County Staff and Land Agent on landowner agreements for pipeline easements, additional geotechnical borehole following completion of seeding by land occupant for area at top of Peace River valley hill, finalize the design details for the pipeline installation up the Peace River hill, continue with finalizing the Pumping Station land purchase from TransAlta with the Land Agent, Crown land dispositions for the River intake and pipeline, continue with the river intake and pumping station design, conceptual wet well installation design, shoring details for the excavation, and coffer dam design for the intake with the geotechnical group, continue with environmental assessments and corresponding regulatory approval applications (including re-work for revised pipeline alignment sections), possibility of Alberta Environment relaxation of Restricted Access Period for garter snake hibernacula, Water Act submissions, revision and drafting of plan and profile drawings for the pipeline, First Nations Consultations triggered by Public Lands Act Dispositions and Water Act Approval applications, engage with the Archaeologist Subconsultant for the Historical Resource application submission.

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