



M.D. of Foothills No. 31
309 Macleod Trail
P.O. Box 5605
High River, Alberta
T1V 1M7

September 21, 2017
File: N:\2210\FCR.North\P01-1.0

Attention: Jeff Edgington, C.E.T.
Supervisor - Infrastructure

Dear Jeff:

**Re: Fish Creek Ranch – North Distribution Assessment
Proposal for Engineering Services**

MPE Engineering Ltd. (MPE) is pleased to present the following proposal to provide engineering services to the M.D. of Foothills No. 31 (MD) on the above referenced project.

The MD wishes to further refine the service area directly to the north and west of the Fish Creek Ranch (FCR) WTP, as well as explore an expanded service area to the north and east, up to the Hamlet of Priddis. The proposed service areas are identified in the attached sketch (green, orange and blue), as provided by the MD.

Class 'D' cost estimates will be developed to supply water from the FCR WTP to the existing residences that have road access (similar to previous assignments). The work has been divided into two main tasks:

- Task 1 (green area): Combine and Update Previous Studies
- Task 2 (orange and blue areas): North Distribution Assessment

Task 1 - Scope of Work

MPE has completed numerous studies, cost estimates and designs (to varying degrees) to service the green area identified on the attached sketch. This work was completed as part of the Rusticana studies and designs, as well as the Square Butte Ranch (FCR South) studies.

MPE will complete the following as part of Task 1:

- Compile and review all pertinent data from the previous studies.
- Confirm design criteria with the MD. It is assumed that each connection will provide a 'trickle flow' of 300 lgal/day (to be reviewed and confirmed).
- Refine and/or confirm the system demands for the green area.
- Confirm impacts to the existing WTP and compare water demands to the current water diversion licenses. Note the green area generally falls within the service areas outline in the existing licenses (see attached Figure 1).
- Reconfigure and update previous figures and cost estimates.
- Summarize findings in a Draft Report.

Task 2 - Scope of Work

The following tasks will be undertaken to produce Class 'D' cost estimates to service the orange and blue areas (see attached sketch). This scope of work is similar to the 'Phase 1 – Planning Stage' for the Square Butte Ranch (SBR) regional study, along with the expanded scope to investigate the costs of servicing all areas between FCR and SBR.

- Obtain and review all available reports, studies, drawings, data and information available.
- Obtain all available legal, LiDAR, utility, aerial photography, land ownership and other base mapping information.
- Develop working base and existing information maps for the purpose of defining the proposed transmission main alignment. Note the proposed alignment was provided in the attached sketch (purple line).
- Site inspection to review proposed alignment, FCR tie-in requirements and any other potential water system tie-ins. Purpose also is to identify physical, environmental or sensitive areas; and to understand future geotechnical and survey requirements.
- Adjust the proposed alignment if required, however a detailed site investigation and/or alignment alternatives will not be completed at this time.
- Confirm current / future population projections and water demand needs.
- Review impacts to the existing FCR WTP system components.
- Identify potential tee-offs for future tie-ins adjacent landowners or serviceable areas. This includes potential tie-ins to Priddis Greens.
- Develop a servicing strategy in two phases. Phase 1 will be the orange area with potential upsizing requirements in the green area. Phase 2 will be the blue area with potential upsizing requirements through both the orange and green areas.
- Complete a desktop review of existing conditions, general topography, and service locations within the expanded service area.
- Complete a cursory hydraulic review to establish pipe sizing and determine the need for any booster stations or pressure reducing vaults.
- It is assumed that each connection will provide a 'trickle flow' of 300 lgal/day (to be reviewed and confirmed).
- Complete cost estimates for the transmission main and each of the branches required to service the rural areas.
- Create a figure which shows the proposed water distribution system including the various rural areas serviced by branches off of the transmission main.
- Draft a brief letter report to present the cost estimates, figure and review findings and assumptions. Deliverable will be similar to the Letter Report entitled "*Fish Creek Ranch – South Distribution Assessment*" dated February 2, 2017.
- Coordinate a meeting between the MD and MPE to review the Draft Report. MPE will update the report based on input at the meeting and provide a final report to the MD.
- Leverage the work completed on previous studies, the raw water intake, pipeline and FCR WTP capacity.

Fees

The following engineering fees are proposed for the above work (GST not included):

Task 1 – Scope of Work	\$ 5,000
Task 2 – Scope of Work	\$25,000

Project Total (excluding GST): **\$30,000**

MPE is also available to assist with moving the project forward as required. This may include examining variations on the pipeline concept, alignment and demand assumptions (beyond the letter report), and review and address stakeholder inquiries, and/or complete stakeholder and council presentations. We propose that this potential work be completed on an hourly basis if required. MPE can also assist the MD through the Local Improvement Tax Bylaw Process, including distribution and cost refinement depending on local interest, however this is not currently included in the Scope of Work.

Closure

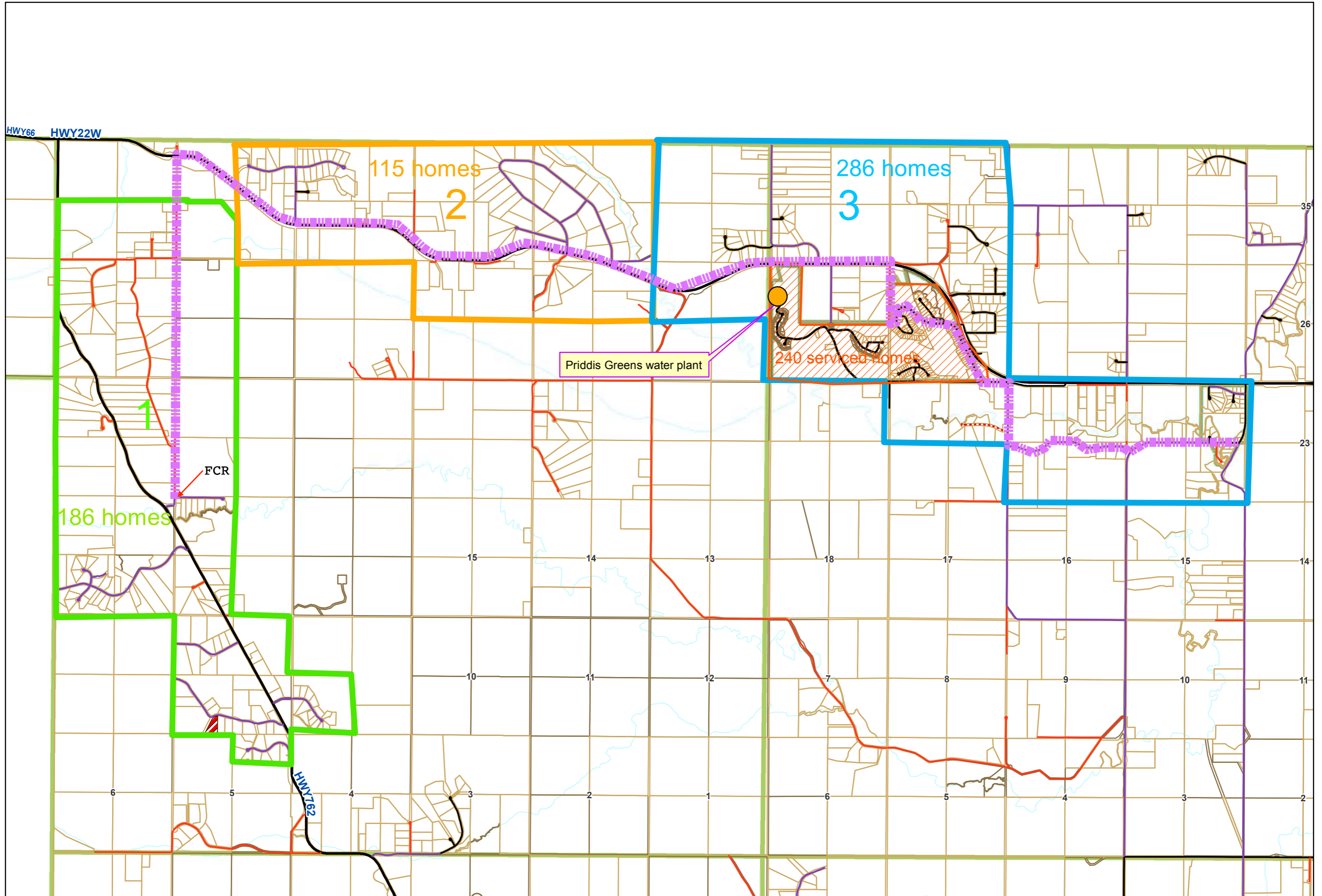
Our team members have extensive local knowledge and have completed, or have been involved in related projects with the MD.

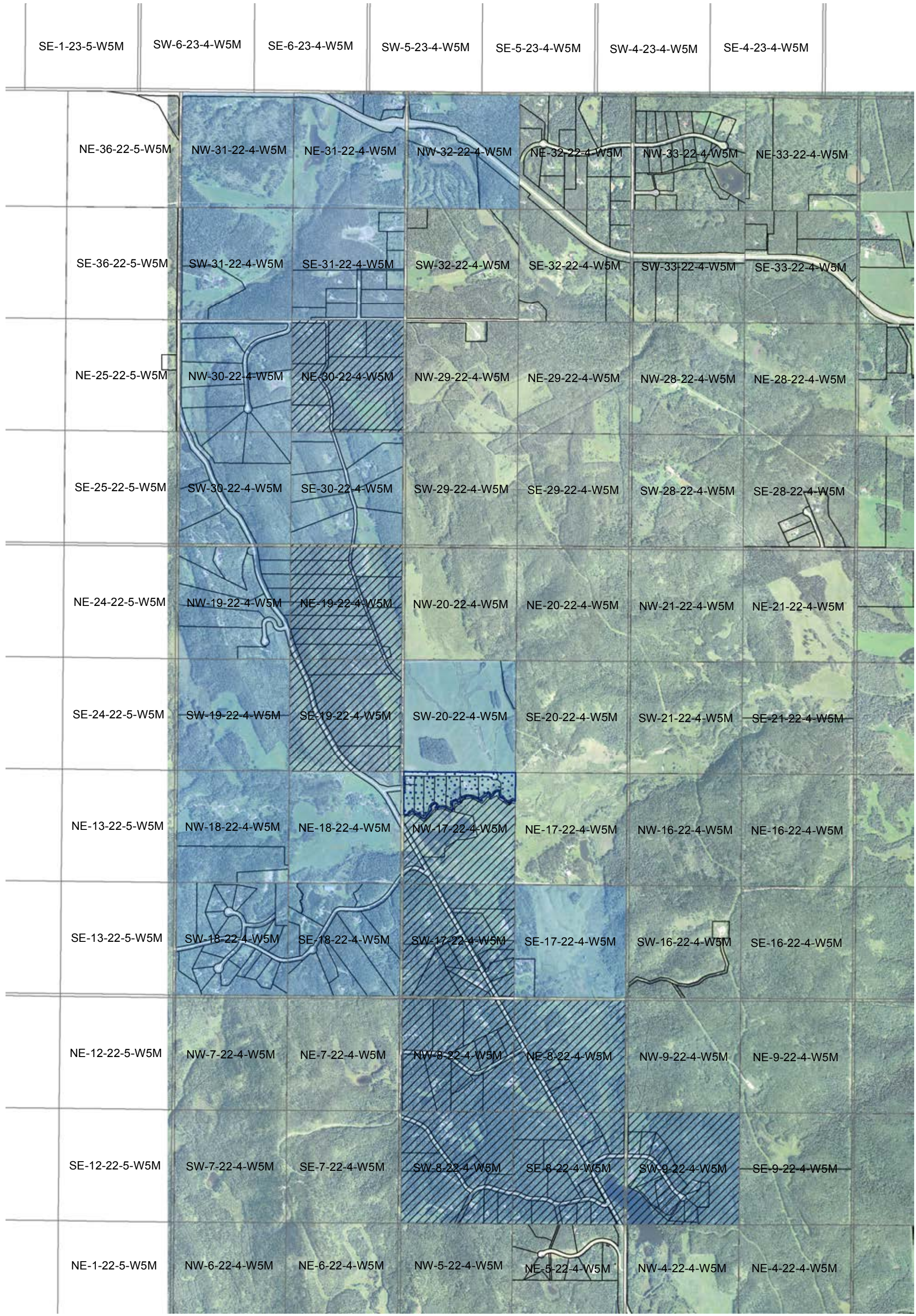
MPE is available to begin work on the project immediately. We are projecting that the Draft Report will be available to the MD four weeks after the project award.




MPE Engineering Ltd. would like to thank you for the invitation to submit this proposal. We look forward to the successful completion of this assignment.

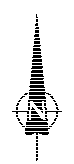
Yours truly,


MPE ENGINEERING LTD.





-  Water License 00321780
-  Water License 00321775
-  Water License 002202970002



		MUNICIPAL DISTRICT OF FOOTHILLS	
Engineering Ltd.		FISH CREEK RANCH WATER TREATMENT PLANT WATER LICENCES	
SCALE: 1:25,000	DATE: DECEMBER 2015	JOB: 2210-045-01	FIGURE: 1