



REPORT

To: Chair and Directors

Report Number: ENV-EADC-054

From: Environmental Services

Date: April 17, 2026

Subject: Rose Prairie Water and Drilling and Sampling Program – Update 4

RECOMMENDATION #1:

That the Electoral Area Directors Committee recommend that the Regional Board proceed with decommissioning the Rose Prairie Water Station based on the results presented in the attached '2025 Phase 2 Field Program Summary – Rose Prairie Water Well Drilling and Pump Test' by TetraTech Canada Ltd. dated March 17, 2026.

RECOMMENDATION #2:

That the Electoral Area Directors Committee recommend that the Regional Board consider further investigation at the North Peace Park for possible development of an Area B community water source.

BACKGROUND/RATIONALE:

Rose Prairie

In 2024, the Regional Board approved a drilling and sampling program of up to three wells near the existing Rose Prairie Water Station. The intent of the program was to identify a viable groundwater source with a minimum flow rate of 20 gallons per minute and water quality compatible with the current treatment system. The program, conducted between August and September 2024, determined that Locations 1 and 2 did not meet the required flow or water quality criteria and were not suitable for use with the existing Rose Prairie Treatment System. Location 3 could not be fully developed due to well integrity issues. It was recommended for use as an observation well should additional well drilling proceed. Results of this program were presented to the Electoral Area Directors Committee on January 24, 2025. Following presentation of these results, the Regional Board passed the following resolution on March 6, 2025:

MOVED, SECONDED AND CARRIED

That the Electoral Area Directors Committee recommend that the Regional Board proceed with amending the Rose Prairie Drilling Authorization Agreement with the landowner, approve drilling a fourth well within 50m of the third drilling location, and continue with the testing and sampling program to determine suitability of the water for treatment at the existing Rose Prairie Water Station to be funded through Electoral Area B Peace River Agreement Funds committed on December 14, 2023 from Spending Item # 1 – Potable Water and Feasibility Studies.

Drilling of Location 4 and development of Location 3, as an observation well, were conducted from November 17, 2025 to January 23, 2026. The program assessed whether Location 4 could provide sufficient water quantity (≥ 20 US gpm) and quality suitable for treatment using the existing Rose Prairie system. Findings from the program indicated that, in terms of quantity, Location 4 met the minimum

flow rate required. In terms of water quality, sampling results indicate that some parameters met guidelines, and several exceedances were identified as outlined in the attached '2025 Phase 2 Field Program Summary'.

To summarize the findings, the BC Water Quality Guidelines and the Government of Canada Drinking Water Quality targets cannot be met with the existing Rose Prairie Treatment system without additional treatment upgrades, including treatment for the following:

- Metals: lithium, manganese, sodium, arsenic, iron
- Total Suspended Solids (TSS)
- Turbidity
- Bromide
- Total Organic Carbon
- Iron
- Methane

There were two separate sampling events for the Rose Prairie Water Location 4 well. Inconsistencies were found with each of the sample results. TetraTech recommends resampling soil and gas parameters including: Trihalomethanes (THMs) and Haloacetic Acids (HAA), and bromide to provide greater data certainty should continuation with utilization of the existing site be pursued.

The pumping results indicate that Location 4 can meet the required water flow. The water quality test results indicate the water quality cannot be treated to regulatory standards using the existing Rose Prairie system. Upgrades to the treatment system would be necessary to treat the water from Location 4 well.

North Peace Park

The North Peace Park was previously identified as a potential viable location for a water station as it offers several advantages: the site has an existing well, is already owned by the Peace River Regional District (PRRD) (eliminating lease requirements), has suitable access and layout (flat with adequate turning radius), is located on a paved travel corridor and could enhance the value and functionality of existing onsite facilities through access to potable water. In 2023, the Regional Board directed staff to investigate the existing well to determine if the supply was sufficient.

On May 17, 2023, the Regional Board approved the following recommendation:

MOVED, SECONDED, CARRIED

“That the Regional Board authorize an assessment of the Peace River Regional District owned water well located on the North Peace Fall Fairgrounds, to determine if the water well is capable of recharging at a rate that is sufficient to supply potable public water at the North Peace Fall Fairgrounds; further, that the assessment include an updated chemical and bacteriological analysis, and treatment options.”

Tetra Tech Canada Ltd assessed the North Peace Park's water well for water quantity and quantity in the summer of 2023. The assessment concluded that the existing well had several barriers to using it for supply of potable water including:

- Potential regulatory non-compliance of the well due to missing construction and surface seal information.
- Improper construction of the well, including screening across multiple aquifers, posing risks to water quality and aquifer integrity.
- Unknown conditions below the screen, creating uncertainty regarding well performance and groundwater quality.
- Low well yield (0.28 m³/day to 2.52 m³/day)

Investigation Considerations and Potential Next Steps:

Revisiting the potential for the North Peace Park well as a community water source would require the following:

1. Development of a Project Charter to be approved by the Regional Board outlining the purpose, scope of investigation, costs, project team, communications and timelines to clearly identify the start and stop aspects of the project.
2. Review of background information and a desktop hydrogeological analysis to identify potential locations for drilling of a new water well at the North Peace Park.
3. Drilling of a new compliant well.
4. Determination of water quantity and water quality compatibility with the existing Rose Prairie Water treatment equipment for re-use at this location.

ALTERNATIVE OPTIONS:

1. That the Electoral Area Directors Committee recommend that the Regional Board approve the re-sampling of the Location 4 water well to allow further evaluation of the ability to treat the water utilizing the existing treatment system at the Rose Prairie Bulk Tankloader site.
2. That the Electoral Area Directors Committee provide further direction.

STRATEGIC PLAN RELEVANCE:

- Asset and Infrastructure Management

FINANCIAL CONSIDERATION(S):

To date, the project to identify alternative locations to drill, drilling of the 4 wells, sampling events and reporting has cost \$443,640.

The total budget available for the project was \$816,470, so the remaining available capital budget for the Rose Prairie Water project is \$372,830 of previously committed Electoral Area B Community Works Funds.

As of April 8, 2026, inclusive of capital construction costs, investigative costs and annual operational costs (excluding 2026), \$2,180,173.85 has been spent on the Rose Prairie water station.

COMMUNICATIONS CONSIDERATION(S):

A project update and the 2025 Phase 2 Field Program Summary – Rose Prairie Water Well Drilling and Pump Test technical memo will be posted to the project page on the PRRD website based on the outcome of EADC's decision.

OTHER CONSIDERATION(S):

Upon Board approval of revisiting the investigation of North Peace Park as a community water system, staff will draft a Project Charter outlining the scope of investigation, key stakeholders, communications considerations and an estimated project timeline and rough budget. The Project Charter will be presented to the June 18, 2026, EADC for recommendation to the Regional Board for approval on June 25, 2026.

A link to the December 8, 2023, Regional Board meeting agenda, which includes the document 'North Peace Fall Fair Grounds Well Deficiencies – Issued for Use-Rev1', has been provided below.

Attachment:

1. 2025 Phase 2 Field Program Summary – Rose Prairie Water Well Drilling and Pump Test

External Links:

1. [November 23, 2023 Electoral Area Directors Committee Recommendations ADM-BRD-451](#)- See Item 8.1 on the December 8, 2023, Regional Board Agenda