MASKWA
ENVIRONMENTAL CONSULTING

Report

Initial Project Description

Dawson Creek Water Supply System Project

Prepared for
City of Dawson Creek

August 15, 2025

Maskwa Environmental Consulting Ltd.
1600, 140 10 Avenue SE,
Calgary, AB T2G 0R1

Page intentionally left blank

Executive summary

The City of Dawson Creek ('the City' or 'the Proponent') currently supplies water to approximately 15,000 people (the City 2025a). In recent years, the City has noted significant changes in Kiskatinaw River flow rates. The ongoing impacts of drought have increased the vulnerability of the municipal water supply. The City has seen an increase in the need for emergency conservation responses, underscoring the need to urgently secure a reliable and sustainable backup water supply.

To address this, the City is proposing a new water pipeline from the Peace River to provide a reliable source of fresh water for the City's municipal water treatment and distribution system. The Dawson Creek Water Supply System Project (the Project) would also provide a reliable source of fresh water to rural residential, agricultural, and industrial water users via truck fill stations along the pipeline route and direct pipe connections where practical.

The Project includes the following core components:

- **Water Intake System.** The Intake System consists of groundwater wells and pipe river intake system to allow the withdrawal of water from the Peace River directly or via groundwater wells.
  - **Groundwater Extraction Wells.** Four to six wells located in the Peace River valley, south of the Peace River.
  - **River Intake.** A direct intake pipe from the Peace River to a pump well, intended as a backup to the groundwater wells.
- **Water Transmission Pipeline.** Approximately 52-kilometres of pipeline, with a nominal diameter of up to 36-inches, between Taylor and Dawson Creek, British Columbia (BC). At this conceptual stage, the pipeline length is approximate and subject to adjustment based on final pipeline routing.
- **Pumping Stations**. Up to two pumping stations, one near the Peace River and another near the Kiskatinaw River.

The Project has been preliminarily designed to follow previously disturbed corridors where feasible, to reduce land disturbance, and avoid culturally or ecologically sensitive areas. Preliminary review of regional data and comparable projects suggests limited residual impacts after appropriate mitigation. The Project is expected to provide regional benefits, including providing improved water access for agriculture, fire protection, and industrial operations. The Project is expected to generate tax revenue and support ongoing economic activity in the region.

The Peace River has been selected as the water source, as it will provide a larger and more secure source of water compared to the Kiskatinaw River. Hydrology modelling from the Northeast Water Tool indicates that the Peace River has a mean annual discharge of 1,431 cubic metres per second (m^3/s), compared to the mean annual discharge of 10.3 m^3/s for the

Kiskatinaw River (BC Energy Regulator [BCER] 2025a). The current average allocation for the Peace River is 0.6% of the mean annual discharge (BCER 2025). The maximum proposed withdrawal rate for this Project would be less than 0.03% of the Peace River's annual discharge.

Since early-2024, the City has initiated engagement with Indigenous nations, local governments, provincial regulators, and key stakeholders regarding the Project. Engagement done to date is summarized in the Engagement Plan. Engagement will continue as Project planning and design advances, including through secondary permitting processes and regulatory reviews that provide additional opportunities for input. The City remains committed to working respectfully with affected communities to incorporate feedback and mitigate potential impacts.

Given the time-sensitive nature of this Project and the risks associated with delaying the provision of a secure water source, the City is seeking an exemption from the requirement for an Environmental Assessment Certificate pursuant to the Environmental Assessment Act (BC Reg 243/2019). Engagement activities with Indigenous nations, stakeholders, and the public have been initiated and will continue through the public engagement period and subsequent phases of Project development.

The City is committed to ensuring that all applicable environmental, archaeological, and regulatory requirements are addressed through secondary permitting processes. Based on the Project's scope, location, and proposed mitigation measures, significant adverse environmental, economic, social, cultural, or health effects, or serious effects to an Indigenous nation are not anticipated. Potential impacts will be identified and addressed through ongoing engagement and the applicable permitting and regulatory review processes to ensure full compliance and protection of environmental, archaeological and Indigenous values.

The City is submitting the Initial Project Description (IPD) as required under the BC *Environmental Assessment Act*, to initiate the Early Engagement phase of the BC Environmental Assessment process and to seek an exemption from the requirement for an Environmental Assessment Certificate. DC Environmental Ltd. and the City engaged Maskwa Environmental Consulting Ltd. to prepare this IPD.

Contents

Tables

Figures

Appendices

Acronyms and abbreviations

BC	British Columbia
BC EAA	BC Environmental Assessment Act
BCER	BC Energy Regulator
BCSC	BC Supreme Court
BWBS	Boreal White and Black Spruce
CEMP	Construction Environmental Management Plan
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
the City	the City of Dawson Creek
CEF	Cumulative Effects Framework
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
EAC	Environmental Assessment Certificate
EAO	Environmental Assessment Office
EMP	Environmental Management Plan
HDD	Horizontal Directional Drilling
HAP	Heritage Site Alteration Permit
HIP	Heritage Inspection Permit
IPD	Initial Project Description
IR	First Nation Reserve(s)
km^2	squared kilometres
km	kilometre(s)
l	litre(s)
m^3	cubic metres
m	metre(s)
MNBC	Metis Nation British Columbia
MOU	Memorandum of Understanding
mw	Moist Warm
OCP	Official Community Plan
PRRD	Peace River Regional District
the Project	Dawson Creek Water Supply System Project
the Proponent	the City of Dawson Creek
QEP	Qualified Environmental Professional
RSEA	Regional Strategic Environmental Assessment
s	second(s)
SPFA	South Peace Fringe Area
VCs	Valued Components
W.A.C. Bennett Dam	Dinosaur Lake Dam
WLRS	Water, Land, and Resource Stewardship
WTP	water treatment plant
WUP	Water Use Plan

1 General information and contacts

The City of Dawson Creek ('the City' or 'the Proponent') is proposing the Dawson Creek Water Supply System Project (the Project). General information and the Proponent contact information for the Project is provided in Table 1.

Table 1 - Project information and key contacts

Proponent information	
Project name	Dawson Creek Water Supply System Project
Project location	Taylor, British Columbia (BC) to Dawson Creek, BC
Project sector and type	Water Management Project • Water Diversion Project • Groundwater Extraction Project
Name of the Proponent	City of Dawson Creek
Proponent address	10105 – 12A Street City of Dawson Creek, BC V1G 3V7
Proponent contact	Kevin Henderson, Chief Administrative Officer (250) 784-3622 khenderson@dawsoncreek.ca
Website	www.dawsoncreek.ca
Principal contact person for purposes of the Environmental Assessment (EA)	
Contact name	Darcy Friesen, President, DC Environmental Ltd. (250) 263-1547 Pipeline@pris.ca

2 Project overview

A summary of the Project location, purpose and rationale, and benefits is provided in the sections below.

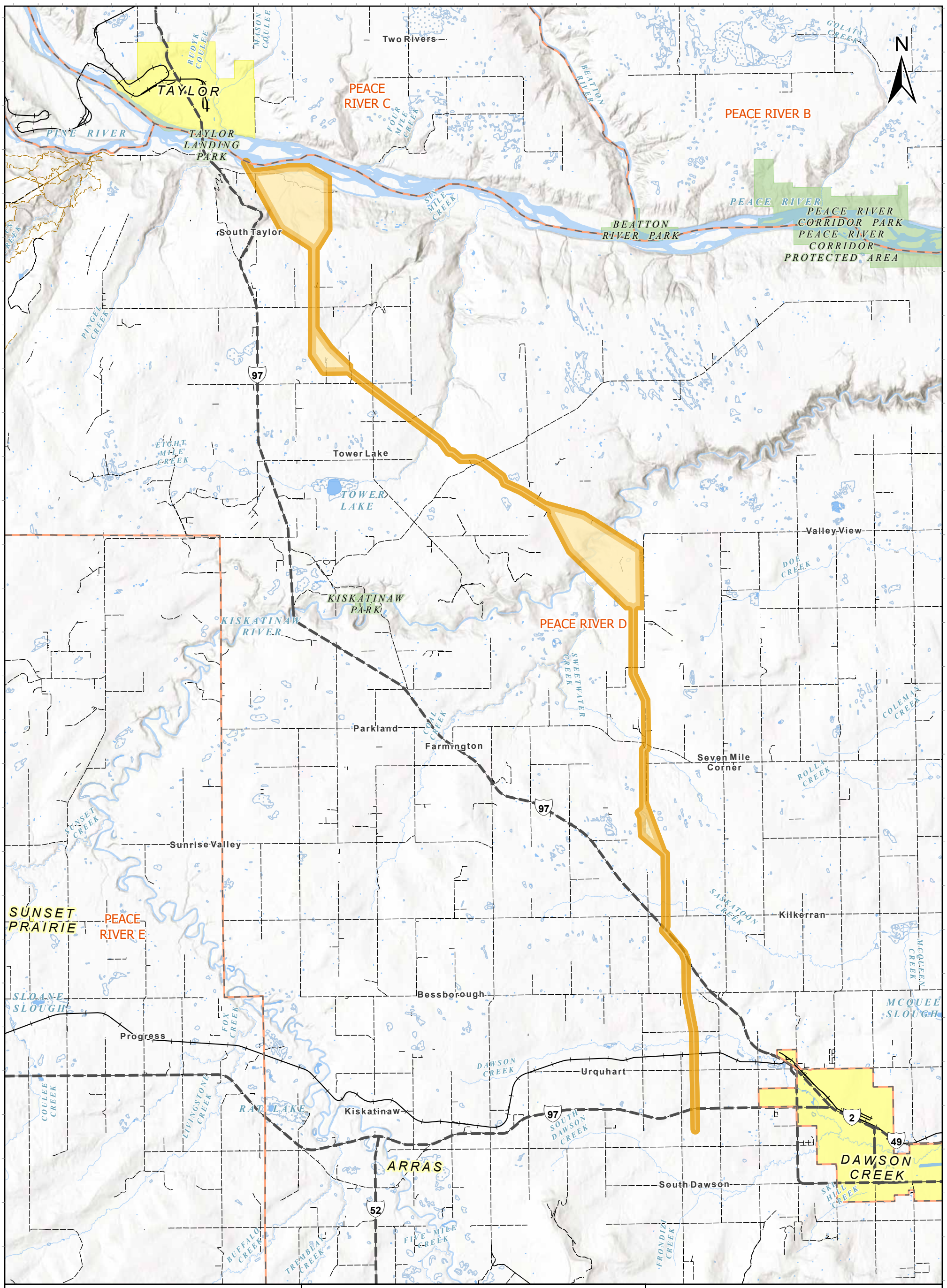
2.1 Location

The Project is located within the Peace River Regional District (PRRD). The water intake is proposed at a location at the Peace River, south of the District of Taylor. The approximately 52-kilometres (km) water transmission pipeline terminates at an existing raw water storage reservoir (the South Dawson Reservoir) west of the City (Figure 1; Appendix A). The pipeline length is approximate and may be adjusted based on final pipeline routing. Four to six groundwater extraction wells will be located in the Peace River Valley, south of the Peace River. Up to two booster pump stations will be installed along the pipeline route; one near the south crest of the Peace River Valley, and the second one located southeast of the Kiskatinaw River. The Project is also located in proximity to Pouce Coupe and the 12 unincorporated communities of Electoral Area D.

The Project overlaps the territories of McLeod Lake Indian Band, West Moberly First Nations, Halfway River First Nation, Saulteau First Nations, Horse Lake First Nation, Doig River First Nation, and Blueberry River First Nations, all of whom are Treaty 8 signatories (Government of Canada 1966).

The Project is also close to the community of Kelly Lake First Nation and communities that are members of the Métis Nation British Columbia (MNBC), including Fort St. John Métis Society, Kelly Lake Métis Settlement, Moccasin Flats Métis Society, North East Métis Association, and River of the Peace Métis Society (MNBC 2025).

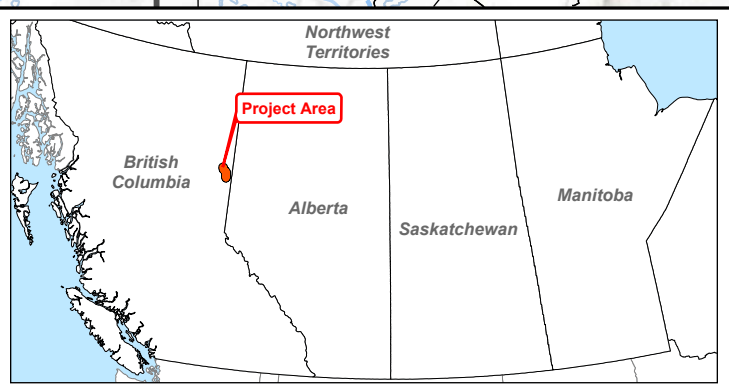
The Project components will be sited within the Project Study Corridor (Figure 1). The Project Study Corridor is generally 200-metres (m) wide. At certain locations (e.g., the Peace River Valley and Kiskatinaw River) larger areas have been included as part of the Project Study Corridor to allow for additional area to be assessed as Project planning and design advances, and to allow for micro-routing to occur at these locations. The Project Study Corridor follows established linear infrastructure corridors and previously disturbed areas, with over 50% of the Project Study Corridor overlapping agricultural lands, and approximately 11% of the Project Study Corridor overlapping lands used for oil and gas. Over 60% of the Project Study Corridor overlaps with private land tenures. The final Project footprint is anticipated to be over 90% private land tenure, once the final pipeline footprint is determined at the Kiskatinaw and Peace River crossings. Further, approximately 85% of the Project is being planned adjacent to existing proposed Project corridors.



Legend

- Project Study Corridor
- Highway
- Road
- Recreation Trail Lines
- Railways
- Hydrology
- Wetlands
- PRRD Electoral Area Boundaries
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

Project Overview Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 2 4 6 8 km

Scale: 1:150,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N		Aug 13, 2025	Rev 1
Document Control: N/A	File Reference: Route Option A	Figure 1	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_ProjectOverviewMap\PB-0002-25_DawsonCreek_WaterSupplySystem_EAO_ProjectOverview_Map.aprx

2.2 Purpose and rationale

The City currently provides water for approximately 15,000 people including residents of the City, Pouce Coupe, and residential, commercial, and industrial water users in the surrounding areas of the PRRD (the City 2025a). The City's current water source is the Kiskatinaw River located about 18 km west of the City (the City 2025b). In recent years, the City has noted significant changes to Kiskatinaw River flow rates and impacts of ongoing drought conditions have highlighted the vulnerability of the City's water supply. According to flow measurements undertaken by the City in 2024, observed flow rates at the point of diversion on the Kiskatinaw River approached near record low levels (the City 2025c, Water Survey of Canada 2025).

As of July 22, 2025, the Stream Flow Percentile Rating and Water Level Percentile Rating are both noted as Record Low for the water level monitoring station at Kiskatinaw River near Farmington (Station ID 07FD001), downstream of the City of Dawson Creek diversion point (Government of BC 2025a). The flow rate was 0.13 cubic metres per second (m^3/s). This is 19.88 m^3/s below the daily average flow rate. The water level was measured at 0.02 m, which is 0.42 m below the daily average water level (Government of BC 2025a). The City implemented Stage 2 Water Conservation Measures on July 25, 2025 to ensure that water reserves are utilized as effectively as possible (City 2025e).

The observed changes to the Kiskatinaw River watershed are forecasted to impact the City's water supply long term. A 2011 Cumulative Effects Assessment by the Forest Practices Board concluded that there have been several important changes in the flow regime of the Kiskatinaw River that may be of concern for managing drinking water quantity, including an increase in the variability of the total flow and maximum flow, a decrease in the median flow of the spring freshet, a decrease in the median flow during the late summer and early fall, and a change in the timing of the low flow in some recent years (Forest Practices Board 2011).

Other studies have forecasted that the Northeast region can expect significant changes to its climate including warmer temperatures resulting in relatively more precipitation falling as rain rather than snow. This means an increase in winter runoff, reduced snowpack and an earlier freshet. Less water stored over winter and melted earlier in the year also means reduced summer streamflow (Fraser Basin Council 2019). Water supply vulnerabilities identified due to climate change include increasing turbidity and sediment load resulting from heavier rainfalls during extreme storm events, drier summers and heavier rains potentially impacting groundwater and flow volume. These climate changes result in earlier freshet for the Kiskatinaw River and decreased streamflow during summer, making water management planning more challenging (SHIFT Collaborative 2019).

Altered precipitation and temperature patterns can lead to more frequent and severe droughts. Analysis of historical meteorological data shows more frequent moderate to severe drought in recent years in the region (BC Ministry of Forests 2024). According to the BC Drought Information Portal (Government of BC 2025a), in 2024, the East Peace Region was rated at a 5

on the drought scale 12 of the 26 weeks of the core drought season and a 4 the remaining weeks. A Level 5 is the most severe drought ranking across the Province of BC (Government of BC 2025a).

The consequences of drought include a shortage of water for domestic, agricultural, and industrial uses, which can disrupt daily life and economic activities; reduced crop yields and harm to livestock, affecting the agricultural sector and food security; increased risk of wildfires, which can destroy homes, infrastructure, and natural habitats, and contribute to air pollution; reduced flow of the Kiskatinaw River, which can harm aquatic ecosystems by reducing water levels and increasing water temperature; and impacts to human health directly and indirectly (for example, increasing the risk of waterborne illnesses and respiratory problems due to increased air pollution from wildfires) (the City 2023a). Droughts in combination with forest fires increase the potential demand for raw water for fire suppression causing further water level reduction in raw water reservoirs. Dawson Creek's city fire response uses potable water (the City 2023a).

Due to the current water levels in the Kiskatinaw River, and the forecasted impacts of the ongoing drought, the City is pursuing this Project to provide a secure and stable source of water for the City. The Peace River has been selected as the water source, as it will provide a larger and more secure source of water compared to the Kiskatinaw River. Hydrology modelling from the Northeast Water Tool indicates that the Peace River has a mean annual discharge of 1,431 m^3/s, compared to the mean annual discharge of 10.3 m^3/s for the Kiskatinaw River (BC Energy Regulator [BCER] 2025a). The current average allocation for the Peace River is 0.6% of the mean annual discharge (BCER 2025). This maximum proposed withdrawal rate for this Project would be less than 0.03% of the Peace River's annual discharge.

2.3 Benefits

Maintaining a secure water supply for the City and surrounding water users is imperative for local communities, businesses and agriculture and food production. Given the current challenges and forecasted risks to the City's water security, this Project is proposed to provide a reliable source of fresh water, alleviating water security concerns for the City.

Anticipated benefits to the region include providing a secure water source for residents, contributing to improved human health and fire response capabilities. A secure water source will also allow access for rural water users, facilitate business activity in agriculture and oil and gas exploration and production activities that require water, generate direct tax revenue and support ongoing economic activity in the region. Sourcing water from the Peace River rather than the Kiskatinaw River will reduce pressure on the Kiskatinaw River, which has been experiencing reduced water flow and water levels (Government of BC 2025a).

2.4 Engagement

Between early 2024 and mid-2025, the City undertook early engagement with Indigenous Nations, regulatory agencies, municipalities, and the public to inform the development of this Engagement Plan (EP). Meetings were requested with Chief and Council from several Nation identified as potentially impacted by the Project. In July 2025, the City delivered a project presentation at the Treaty 8 Tribal Association table. Project-specific information packages—including a draft IPD, draft EP, maps, and a questionnaire—were distributed via email and at the meeting with individual Nations. A sample of these materials is included in Appendix A of the Engagement Plan.

Engagement with local governments and regulatory bodies has been ongoing since early 2024, with discussions focused on Project alignment with existing land use plans, infrastructure needs, and anticipated permitting considerations. These discussions informed the structure and focus of this EP, as well as refinements to the study corridor.

To raise public awareness, the City issued a project-specific news release in July 2025, generating regional media coverage and public interest. Project information has been shared through the City's website and social media channels, alongside updates on water restrictions.

At the time of submission, no formal feedback has been received on the draft EP. The EP will continue to be updated as engagement progresses and as input is received. Where appropriate, feedback will inform route development, engagement methods, and Project materials.

3 Project status and history

3.1 Project history

The Project is a new project and has not been the subject of previous EA applications or regulatory processes. In 2013, the City identified the potential for a water pipeline from the Peace River to provide water supply to the City and its residents, however, development of a water pipeline was not pursued due to the estimated project cost at the time and prioritization of other water system investments (as described in Section 5.1.1).

In July 2025, the City announced that preliminary work was underway to advance a water pipeline in order to maintain a secure and sustainable water supply (The City 2025d).

3.2 Existing infrastructure

The City acts in the capacity of water purveyor under the *Drinking Water Protection Act*, providing water services to the City. In addition, the City sells bulk potable water to users who are directly connected to the City's water distribution system. The City also provides potable water to the nearby village of Pouce Coupe, through the City's distribution network.

3.2.1 Source

The Kiskatinaw River watershed is the sole source of drinking water for the City and the Village of Pouce Coupe, as well as surrounding rural residents. The watershed provides water for a combined population of approximately 15,000 people (the City 2025a).

Water flows approximately 170 km downstream from Bearhole Lake to the City's water intake at Arras. The City has a single feed from the Kiskatinaw River, located at the Arras pumphouse located adjacent to the Arras Weir, approximately 17 km west of the city. When the City makes an authorized release of water from Bearhole Lake (such as during periods of low river flow), it can take 14 days for the water to reach the Arras Weir. Further, the volume received at Arras has been considerably less than the volume released, due to water being withheld on its journey down the river (the City 2023a, 2025).

3.2.2 Water intake and distribution

From the water supply intake located at Arras, river water is pumped from the Kiskatinaw River through the Hansen, Hart, South Dawson, and Trail reservoirs which serve the dual purpose of storage and lowering turbidity levels in the raw water. Collectively, these raw water reservoirs provide 1,836,255 m^3 of storage capacity based on the as-built reservoir capacity (the City 2023a).

Raw water travels a distance of 16.5 km through the distribution network between the Arras pump and the City's water treatment plant (WTP; the City 2023a).

3.2.3 Water treatment plant

The City's WTP is a Class IV facility with the capacity to treat up to 14,500 m^3/day (equal to 5.3 million m^3/year). Processes used for treatment include coagulation, flocculation, clarification, filtration, UV light, and chlorination. Treated water is conveyed from the WTP to customers via a distribution system of large diameter water mains, concrete reservoirs, and booster pumping stations (the City 2023a, 2025).

3.2.4 Post-water treatment plant distribution

The post-WTP distribution system is divided into three pressure zones which service the City. All three zones use gravity with the assistance of pumps during times of high demand. Pressure in these zones ranges from 50 to 100 pounds per square inch.

Four concrete construction treated water reservoirs (WTP, Loran, Parkhill, and Pouce Coupe) collectively store 17,586 m^3 of water. Pumps or booster stations pump water to and from the reservoirs throughout the City, as needed.

Reservoirs are generally strategically located within the City's water distribution system at high points in the area to leverage gravity for maintaining distribution system pressures. These also provide necessary storage for the City to maintain fire flow during peak demand (the City 2023a).

3.3 Water system projects and upgrades

Over the last 50 years, a number of projects have helped build the City's storage capacity to over 2.5 million m^3 (the City 2021).

- **Hart, Trail, and Lungul Reservoirs**: Located west of the WTP, these reservoirs were built in 1975. These reservoirs have provided storage capacity of 22,000 m^3, 378,000 m^3, and 24,600 m^3, respectively. The Hart Reservoir is located the furthest west, and is at the highest point of the raw-water sytem.
- **Arras Weir:** Installed in 1992, this project provides a small catchment area of about 300,000 m^3 that allowed the City to draw water in times of severe drought.
- **Water Main Upgrade:** The raw water main between the Kiskatinaw River and Hart Reservoir was upgraded to address leakage problems and to accommodate future demands.
- **Hansen Reservoir:** Located just east of the Kiskatinaw River, the reservoir was built in 2004 to increase capacity by 380,000 m^3. It provides additional off-river storage and initial treatment for the river's highly turbid water.

- **Bearhole Lake Weir:** Completed in 2009, this 0.6 m high weir on the headwaters of the Kiskatinaw River holds back water and provides storage of about 1.4 million m^3 that can be released in times of drought.
- **South Dawson Reservoir**: Located west of the Trail Reservoir, the South Dawson Reservoir was constructed in 2018. The reservoir capacity is 1,000,000 m^3.

The City's reservoirs hold enough water for approximately 200 days of City water use (the City 2025b).

The City has a reclaimed water facility, built in partnership with Shell. The facility takes wastewater from the City's lagoons and cleans the water using Submerged Attached Growth Reactors built beside the lagoon system. Further polishing and disinfection occurs through coagulation and disc filtration. The treated water is stored in a well below the building. The treated water is approved for non-potable city use (such as irrigation, street cleaning, and sanitary and storm system pipeline and manhole flushing) as well as industrial uses such as the development of hydrocarbon-producing wells, equipment washing on well sites, and hydrostatic testing of pipelines and facility piping (the City 2025b).

3.4 Current water licenses

The City has two conditional water extraction licences:

- Water License Amendment 117434. Dated September 1, 2021, which supersedes 503568 (Bearhole) License to Extract and permits the City to store and release from Bearhole Lake up to 1,356,850 m^3/year; and
- Water License C133995 (Arras and Reservoirs). Dated October 2017, this license allows the City to divert from the Kiskatinaw River up to 3,318,645.70 m^3/year at a maximum daily rate not to exceed 18,184.368 m^3.

Under these licenses:

- The rate of extraction is to be reduced to 9,092.184 m^3/day when the flow in the Kiskatinaw River reaches 2.076 m^3/second(s) or less;
- The maximum quantity of (raw) water that can be stored in the reservoirs is limited to 2,146,255.2 m^3 (live storage).

4 Project description

4.1 Project siting and design criteria

The Project is at the conceptual planning stage, and engineering design work and technical studies are planned or underway. The Proponent is also working with Indigenous nations, regulators, and stakeholders to refine the Project design and layout. The final design and construction plan will incorporate inputs from the results of hydrogeological, geotechnical archaeological and biophysical studies as well as the outcomes from consultation and engagement. Exploratory wells and testing will be completed in the next phase of engineering design.

A desktop Groundwater Supply Feasibility Assessment by Western Water Associates is being used to inform planning and site selection for the groundwater extraction wells (Appendix B; Western Water Associates 2025). The Assessment determined that a groundwater supply developed in the Project area would likely source water from aquifer 687 (Western Water Associates 2025). An exploratory drilling program will be undertaken if this aquifer is further considered to be the source of groundwater for this Project.

A desktop review of archaeological sites (Landsong 2025) will be used to inform the selection of the pipeline footprint.

The siting and design criteria used to determine the project components includes, but is not limited to:

- Proximity of water intake system to Peace River, both horizontally and vertically
- Relatively low bank height and existing access to edge of water for the water intake
- Groundwater conditions, including sufficient groundwater recharge of wells and source aquifer
- Relatively flat topography, providing good access for construction and operations
- Compatible surface land use
- Proximity to existing linear disturbances, including oil and gas pipeline corridors, to reduce new areas of disturbance
- Geological context
- Environmentally sensitive features
- Archaeological sites

The City anticipates the need for proximity agreements and/or crossing agreements with existing pipelines and other utilities where the Project footprint overlaps their existing surface land rights. Considerations to be incorporated in planning, construction, and operation of the pipeline regarding these third-party utilities include:

- Accurate horizontal and vertical location of existing utilities during project planning
- Planning crossings of third-party utilities to be as close to 90 degrees as practical
- Providing sufficient workspace for extra depth of excavation at crossing locations and for assembly and installation of crossing sections.
- Ensure adequate vertical separation between pipes at crossing locations.

4.2 Project components

The Project consists of the following components:

- **A Water Intake System.** The Intake system consists of groundwater wells and a pipe river intake system to allow the withdrawal of water from the Peace River directly or via groundwater wells.
  - **Groundwater Extraction Wells.** Between four and six wells to be located in the Peace River valley on the south side of the Peace River. Estimated water extraction rates of an average initial flow of 115 litres (l)/s, and peak design flow of 463 l/s. Well depth and construction methods are to be determined.
  - **River Intake**. A direct water intake pipe from the Peace River to a pump well. The River Intake would be used as a backup to the groundwater wells. Annual rate of surface water diversion of approximately 14.6 million m^3/year.
- **Water Transmission Pipeline.** Approximately 52 km pipeline with up to a 36-inch nominal pipe size diameter between Taylor and the City. Pipeline material to include a combination of high density polyethylene pipe and joined steel with internal and exernal coating. At this conceptual stage, the pipeline length is approximate and subject to adjustment based on final pipeline routing.
- **Pumping Stations**. Two pumping stations, one located in the vicinity of the Peace River near Johnson Road, and the second located on the south side of the Kiskatinaw River, near 224 Road and 229 Road. A booster pump station would consist of a small building containing pumps, piping, and related electrical equipment used to increase pressure of fluid in the pipeline. The pumps would be driven by electrical motors drawing power from the local electrical distribution system. The primary pump station to be located near Johnson Road would help lift water out of the valley and through the pipeline. A second pump station has been considered south of the Kiskatinaw River to maintain pressure in the pipeline. Exact locations for both pump stations will be determined in the next phase of engieering design.

Access to the Project will utilize existing public roads, including Highway 97. The Project components will be located within the Project Study Corridor (Figure 1).

There may be off-site locations required for temporary staging area(s) for storage of materials (such as pipe and large components, equipment, and miscellaneous materials, and site offices). Temporary staging and laydown areas will be established for storage of materials to be

incorporated in the project, staging construction equipment and vehicles, project offices, and worker parking. Location for these temporary staging and laydown areas has not yet been determined. Preference will be to use previously disturbed sites for laydown areas where possible.

Temporary buildings may include site offices and warehouses. Temporary buildings will be removed following construction.

Fencing, lighting, and other details associated with temporary staging and laydown areas will be determined as Project planning advances. Temporary staging and laydown areas will be reclaimed to pre-construction conditions following completion of construction activities.

4.3 Project activities

Activities associated with each phase of construction are described below. Assessments are underway to inform detailed plans for Project construction, which will inform the applications for other permits and approvals required for the Project.

4.3.1 Early works

Surveying

Surveying includes flagging and staking of the foreshore area where excavation is to take place for the water intake installation, as well as flagging and staking of the water pipeline right-of-way (ROW), area required for groundwater extraction wells and pumping stations, and temporary workspace (TWS). Existing utilities will be marked, and areas to avoid (such as protected environmentally sensitive areas or heritage sites) will be delineated. Erosion and sediment control measures will be put into place prior to excavation.

Clearing and grubbing

Trees, brush, and other vegetation will be cleared from the water pipeline ROW, area required for groundwater extraction wells and TWS required for the pumping stations. Merchantable timber will be salvaged. As appropriate, non merchantable timber and woody debris will be burnt, provided to landowners or Indigenous communities, or mulched and admixed with the organic layer and the top 15-centimetres of soil. This material will be rolled back across the ROW during interim reclamation. Large stumps and rocks will be removed from areas of the ROW and TWS where the pipeline will be installed or where grading is required.

Access

The Project will involve the development of both temporary and permanent access roads. Temporary access roads will be required to allow construction vehicle access to the pipeline ROW and to facility sites. Permanent access will be required for access to above-ground

facilities during operations including pump stations and groundwater wells. Existing roadways will be used and upgraded where required. Upgrades to existing roadways may include grading and placement of gravel to support construction traffic. Existing vehicle crossing structures will be used to cross watercourses where practical. Temporary vehicle crossing structures may be required, and if required will be installed in accordance with regulatory requirements and best management practices. Approval for development, use, improvements, and reclamation of temporary and permanent access roads will be sought by means of road use agreements or ROW agreements with the relevant road or property owner.

Material and equipment transportation to site

Materials and equipment that will be incorporated into the project will include pipe, valves, fittings and pre-fabricated assemblies to be installed for the pipeline, structural elements, gravel, concrete, and electrical and related equipment to be incorporated into the pump stations. Vendors for materials have not yet been determined, but materials are expected to be sourced from a variety of suppliers from locations in BC, Alberta, other provinces in Canada, and the United States. Sourcing of this material and equipment will occur when the Project design has been sufficiently advanced.

4.3.2 Construction and commissioning

4.3.2.1 Water intake system

In-river work will be planned within the assigned construction windows, taking into consideration fishery timing windows and compliance with permit and approval conditions.

Permanent buildings will be required for groundwater wells. Permanent buildings will enclose pumps and electrical equipment for protection from the weather. Permanent buildings will include exterior area lighting for security and worker safety. Fencing, lighting, and other details associated with permanent buildings will be determined during the detailed design phase.

Construction methodology for groundwater extraction wells and the river intake is to be determined based on geotechnical conditions and other site-specific considerations.

4.3.2.2 Pump station

Topsoil salvage and grading

Graders, bulldozers and backhoes will be used to strip and stockpile topsoil (or surface organic material and upper mineral soil in forested areas) as per the requirements of the Project-specific Environmental Management Plan (EMP). Following topsoil salvage, bulldozers, and backhoes will conduct grading as required on slopes and irregular ground surfaces to provide a safe work surface for infrastructure installment and construction. Ripping of rock may be required to facilitate grading.

Pump station construction

Permanent buildings will be required for the pump stations. Permanent buildings will enclose pumps and electrical equipment for protection from the weather. Permanent buildings will include exterior area lighting for security and worker safety. Fencing, lighting, and other details associated with permanent buildings will be determined during the detailed design phase.

A base slab/foundation will be constructed, and the pumping station building constructed. Site-specific construction methodology is to be determined once a site is selected based on hydrogeological investigation, geotechnical conditions and other site-specific considerations.

4.3.2.3 Water transmission pipeline

Topsoil salvage and grading

Graders, bulldozers and backhoes will be used to strip and stockpile topsoil (or surface organic material and upper mineral soil in forested areas) as per the requirements of the Project-specific EMP. Following topsoil salvage, bulldozers and backhoes will conduct grading as required on slopes and irregular ground surfaces to provide a safe work surface for infrastructure installment and construction. Ripping of rock may be required to facilitate grading.

Trenching

The trench will be excavated using terrain appropriate equipment (e.g., a bucket wheel trencher, excavators) to a depth sufficient to provide the specified minimum depth of cover. Rock trenching or ripping will be required where rock is encountered at trench depth.

Pipe installation

Pipeline installation will generally be by means of open trenching using excavators or other mechanical equipment. Trenchless pipeline installation methods (horizontal bores, Horizontal Directional Drilling [HDD], etc.) will be proposed where trenched installation is not permitted or practical and in areas of environmental sensitivity. Trenchless installation methods may be employed at road and railway crossings, watercourse crossings, third-party utility crossing, or steep slopes to avoid geohazard and steep slope construction risks. These crossings will be planned and completed in accordance with industry best practices for underground utility design and construction, conditions contained in crossing agreements with the facility owner, and applicable legislation and regulations.

Highway trucks will transport pipe to the ROW. The pipe will be bent, lined up, joined, joint-coated and inspected prior to being lowered into the trench. Sideboom tractors and backhoes will be used to lower the pipe into the trench.

Watercourse crossings

Appropriate primary and contingency construction crossing methods and timing will be selected based on the size and characteristics of the watercourses, constructability, and environmental and geotechnical constraints. Construction of watercourse crossings typically involves a riparian setback and installation of erosion and sediment control measures where required. Undefined drainages, without distinct bed and banks will be crossed by an open cut method where practical and where permitted. Minor watercourse crossings will be installed using either an open-cut or isolation technique. The method of construction will be site-specific and will consider whether the watercourse will be dry or frozen-through to the bed (i.e., no flowing water) during construction. Isolated crossings, in which a portion of the streambed is isolated from flowing water, include the installation of dams, pumps, and/or flumes to isolate the construction area, dewatering, instream excavation, weighting of pipe, lowering-in and backfill of pipe section, recontouring of banks and approaches, potential bank stabilization measures, riparian planting, and reseeding.

The Kiskatinaw River will be crossed using HDD. HDD is a trenchless construction method used to install pipelines beneath obstacles such as rivers, roads, or environmentally sensitive areas without open excavation. The process involves drilling of a small-diameter pilot hole along a pre-designed path using a steerable drill head, enlarging the hole by reaming using larger diameter tools to increase the size of the borehole to accommodate the final pipe diameter, and pulling the pipeline through the enlarged borehole. The location and approach for HDD crossings will be determined during the next phase of engineering design. Entry and exit points for the HDD crossing of the Kiskatinaw River will be located above the high-water mark.

A trenchless installation method will also be used for the Peace River Valley slope to minimize surface disturbance. The location and installation method will be determined during the next phase of engineering design.

Testing

Prior to backfilling, the City or a qualified representative will undertake testing to determine pipe integrity. Testing will include hydrostatic strength and leak testing of the piping systems to ensure piping systems are capable of withstanding expected operating pressures, pump function and performance testing to validate pump operation and capacity, and control function testing. Commissioning will involve filling the pipeline with water, observation of initial observations under automatic control, and manual manipulation of the system to test the response of controls and ensure the system operates as intended. Testing and commissioning requirements and acceptance criteria will be developed and incorporated in the construction contract.

Backfilling

Spoil and topsoil will be backfilled separately. Where necessary, a roach will be left over the backfilled trench to allow for subsidence.

Commissioning

Once constructed, the pipeline will be prepared for commissioning and start-up. Commissioning will be conducted by the City or a qualified representative.

4.3.3 Clean-up and restoration

4.3.3.1 Water intake system

Once installation is complete, disturbed areas will be restored.

4.3.3.2 Pump station

Once constructed, final grading/paving of access will occur. Disturbed areas will be replanted or restored.

4.3.3.3 Water transmission pipeline

Disturbed areas will be re-contoured and, in areas of high erosion hazards, specialized erosion control measures will be implemented. The ROW and TWS will be seeded or will allow for natural revegetation after construction, as appropriate. Revegetation type and practice will be determined in consultation with landowners and incorporated in the agreements for surface land rights. Where land is being cultivated, re-seeding by the project or by the landowner to match surrounding crops is expected. On Provincial Crown parcels, revegetation approach will be guided by Provincial authorization for land use and balanced with need for ongoing access for inspection and maintenance of the pipeline.

4.3.4 Operation

The Project will be operated by the City in accordance with regulatory requirements, including Northern Health requirements. The Project will be operational 24 hours a day, 7 days a week all year. Operational activities will include routine inspections and maintenance activities. Routine inspections are expected to include weekly visual inspection of pumping stations and equipment to verify operation and identify abnormal conditions and periodic visual inspection of the pipeline right of way from the ground to identify abnormal conditions or changes that could impact pipeline integrity. Routine maintenance will include cleaning of filters, sensors, and instrumentation as required to ensure accuracy of measurements and other maintenance in accordance with equipment manufacturers' recommendations.

4.3.5 Decommissioning

No component of the Project will be decommissioned within the operational period of 50 years and beyond. Individual elements may be replaced as required. Components in the completed project would be designed to run to failure and would be replaced when they are no longer able to perform their intended function. Exceptions could include pump motors or impellers that may operate but are not able to provide the required power or capacity due to internal wear and may be replaced proactively as part of a preventative maintenance program. Useful life of these wear components is initially estimated at 10 years and will be confirmed through operations.

4.4 Project schedule

As advancing this Project as soon as feasible is critical for the City's water security, the City has presented a schedule that assumes an BC Environmental Assessment Office (EAO) exemption is received, and other potentially long-lead time permits and approvals can be obtained concurrently to the EAO process or on an expediated timeline.

The construction schedule is based on activities commencing as soon as all prerequisite activities are complete and necessary approvals are received. Areas of highest risk construction such as areas planned for trenchless installation methods will be prioritized. Timing of construction will generally be constrained by:

- Securing relevant permits, authorizations, and land rights
- Environmental timing restrictions (such as, migratory bird nesting periods, restricted activity periods for in-stream work, etc.)
- Stripping and salvage of topsoil during non-frozen ground conditions where possible
- Avoiding construction during periods of soft or wet ground conditions (spring breakup and following periods of wet weather) where possible
- Receipt of required long lead materials (line pipe, foundation elements, pre-fabricated assemblies)

A detailed construction schedule will be developed and refined through the project development phase.

Construction of the Project is proposed to begin as early as feasible, subject to permits and approvals. Site clean-up will occur at completion of construction, and reclamation will occur at the seasonally appropriate time following construction. A preliminary schedule indicating durations for each project phase is provided in Table 2. The schedule is high-level, and will be refined as Project planning and design advances.

Table 2 - Project Schedule

Phase	Description	Anticipated duration
Design	Define project footprint, secure land rights, obtain permits and authorizations, engineering and design, secure long lead materials	6 to 12 months
Early works	General contractor Request for Proposal and award, off-site fabrication, surveying, establish temporary sites and access, ROW clearing, commence on site work at high-risk areas	3 to 6 months
Construction and commissioning	Pipe installation, water in-take, trenchless crossings, testing, commissioning, and cleanup	12 to 18 months
Clean-up and restoration	Final cleanup and restoration, post-construction monitoring	6 to 12 months
Operations	--	The Project will be operational 24 hours a day, 7 days a week all year
Decommissioning	--	No component of the Project will be decommissioned within the operation period of 50 years and beyond. Individual elements may be replaced as required

4.5 Workforce estimates

The number of construction jobs expected as a result of the Project is a preliminary estimate that will be refined as the Project design advances.

During construction, there is estimated to be 300 person-years (the number of hours of full-time work in a one year period) of employment, and less than 50 person-years for commissioning, clean-up, and restoration. According to the City, once operational, the Project is expected to increase employment by less than one full-time equivalent position as the operational requirements are anticipated to be completed using current available resources.

Based on preliminary construction planning, it is expected that the Project workforce will utilize accommodations available within Taylor, the City, and the surrounding area. Dedicated workforce accommodation, including temporary work camps, are not anticipated and will not be provided by the Project. The construction worksite is within driving distance of the City and Taylor, where a variety of suitable accommodations to support the expected Project workforce are available.

5 Alternative means of carrying out the Project

5.1 Alternatives to the Project

5.1.1 Water storage, supply, and conservation initiatives undertaken to date

The City has undertaken several capital investments and water management initiatives to steward the water supply for the City and the Kiskatinaw River, including the following:

Water storage initiatives:

- **2004:** Hansen Reservoir increased off-river water storage
- **2007:** Purchase of land for off-river water storage expansion
- **2009:** Installed a control weir at the headwaters, Bearhole Lake
- **2018:** South Dawson Reservoir was built with the intent to provide water in times of drought

Water supply initiatives:

- **2009:** Established the Watershed Stewardship Program. Includes monitoring and data collection for source water protection, partnerships and advisory to water regulators, water use statistics and conservation bylaw amendments, and flood and drought technical support.
- **2012:** Construction of the Water Reclamation Facility. Partnership with Shell Canada to recycle wastewater for non-potable uses.

Water conservation initiatives:

- Since 2008, updated and added new water meters to its distribution system
- Implemented Water Conservation Bylaw 3844
- Introduced increased water rates in 2011 and 2019
- Continued water conservation educational and outreach programs

The City has recorded a decrease in annual treated water usage for the City from 2.5 million m^3 in 2008 to 2.0 million m^3 in 2022 (the City 2023b). Despite these measures, the City identified the need to secure a more reliable source of water to mitigate the ongoing impacts of drought and water scarcity.

5.1.2 Water supply options previously considered

In 2013, the City launched the Sure Water Campaign and Community Water Security Forum. The objective was to identify water users' preferred water supply options. As part of the Campaign, a comprehensive telephone survey with a random sample of citizens was conducted (Discovery Research 2013). Respondents were polled on the four options for the City to upgrade their water supply system:

1) Upgrade the existing water supply system
2) Build a new raw-water storage reservoir
3) Tap into underground aquifers
4) Building a water pipeline to the Peace River or the Murray River.

Respondents were also asked about water conservation measures. The results of the Sure Water Campaign, and other work that the City has undertaken since that time, determined that Option 4, building a water pipeline, is the preferred option due to the long-term benefits of addressing water quantity and quality challenges (Discovery Research 2013, Figure 2). However, development of a water pipeline was not pursued due to the estimated project cost at the time and prioritization of other water system investments (as described in Section 5.1.1).

Given the severity of increasing drought conditions since 2013, the City is in a position to further advance the water pipeline. Given this was the preferred option based on the in-depth review in 2013, and the increased need for the Project since, the City believes this is the best option to secure a reliable water source for the City and to address the ongoing water security concerns.

The possible alternatives considered are summarized in Table 3, including the water conservation measures option.

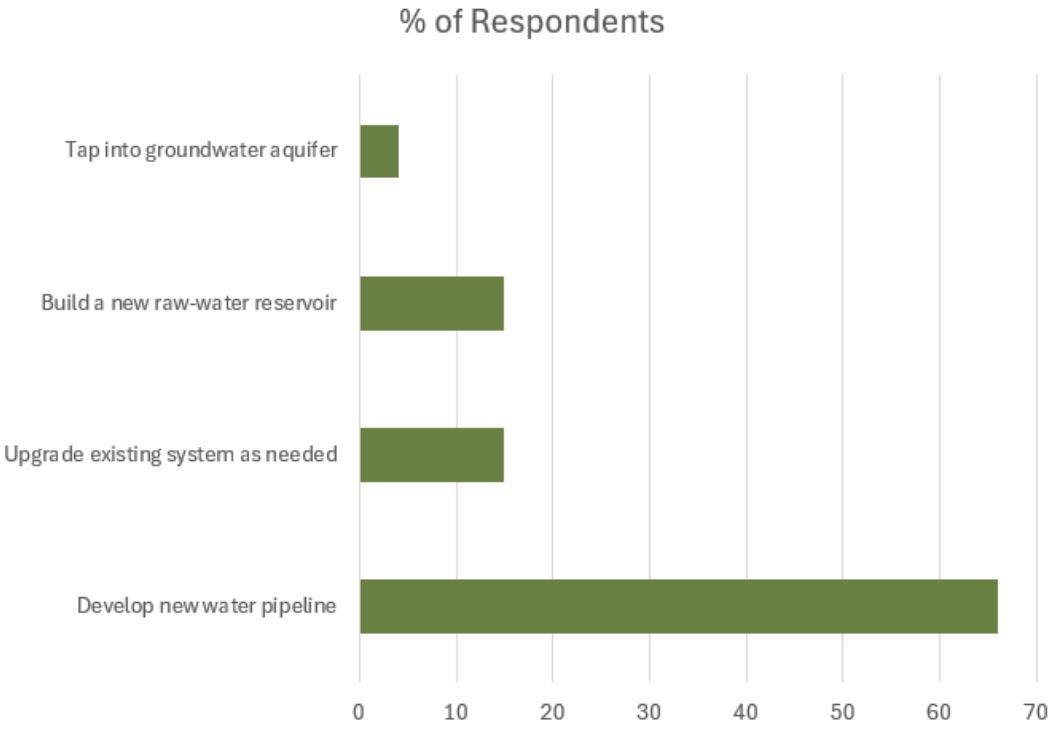


Figure 2 - Sure Water Campaign results on respondent preferred water supply option (Discovery Research 2013)

5.1.3 Hauling or temporary overland water transfer pipeline

Should the City encounter extended periods of drought where existing storage and conservation measures are insufficient to satisfy minimum potable water and fire protection requirements, transferring water using trucks or through temporary above-ground pipe systems has been considered as an alternative. In this emergency situation, water would be drawn from the Peace River and delivered via trucks or above-ground pipeline to the City's raw water reservoirs.

5.2 Alternative means of carrying out the Project

The City has considered alternative means of carrying out the Project. An alternative route following the existing overhead power transmission line was considered during early planning. However, further planning and consideration for this route option did not advance because routing and construction of overhead electricity transmission infrastructure has different design and construction considerations compared to a pipeline, and the location of the crossing of the Kiskatinaw River on the transmission line route option did not have previously completed trenchless pipeline crossings that would be considered to validate the feasibility of that proposed crossing method. The current Project Study Corridor was selected because it parallels existing pipeline infrastructure and would be constructed using similar methods.

A hydraulic analysis and pipe sizing was completed in 2024 based on an assumed demand of 40,000 m^3/day delivered to the existing City water reservoir.

The Proponent will continue to investigate other alternative means for carrying out the Project (such as micro-routing and construction methodology considerations) as design, environmental studies, and engagement with Indigenous nations and stakeholders progresses.

Table 3 - Project alternatives

Item	Alternative	Description	Potential benefits	Potential drawbacks	Outcome
1	Upgrade existing water supply system as needed	Continue to upgrade the existing system	• The lowest cost option (estimated costs in 2013 were about $16 million over the next 20 years). Operational costs would remain relatively unchanged.	• May not meet future water demands, especially during a drought.	• While upgrading the existing system could continue to meet the City's short-term water supply needs, there's no guarantee this approach would accommodate future water demands or reduce the impacts of drought. Therefore, this option was not advanced.
2	Build a new raw water storage reservoir	Construct a new water reservoir.	• Reliability • The second lowest cost option (estimated costs in 2013 were $22 million over 20 years for reservoir design and construction) • Operational costs would be low because the reservoir would have few moving parts that require energy	• Limited potential for growth • Does not address the root cause of unpredictable runoff from the Kiskatinaw River watershed	• While building a new raw water storage reservoir could continue to meet the City's short-term water supply needs, there's no guarantee this approach would accommodate future water demands or reduce the impacts of drought. Therefore, this option was not advanced.

Item	Alternative	Description	Potential benefits	Potential drawbacks	Outcome
3	Develop groundwater aquifers as water source	Use nearby aquifers to boost current water supply in times of drought	• Potential for significant volumes of water in the Arras area aquifers • Water trapped during wet years or periods could be tapped and used during dry times	• This option would only meet a portion of the City's water supply needs, and then only during times of drought • Viability and costs have not been determined • The Sure Water Campaign indicated that respondents least preferred option for the City to investigate was tapping into groundwater aquifers (Discovery Research 2013)	• While tapping into groundwater aquifers could continue to meet the City's short-term water supply needs, there's no guarantee this approach would accommodate future water demands or reduce the impacts of drought, and there is a high degree of uncertainty on costs and feasibility. Therefore, this option was not advanced.
4	Build a new water pipeline	Construction of a new water pipeline from the Murray River (approximately 40 km) or Peace River (approximately 50 km)	• Provide high degree of water security • Address water quality and quantity challenges • Economies of scale and watershed stewardship by managing and supplying water to multiple users via a shared regional system • The Sure Water Campaign indicated that respondents most preferred option for the City to investigate was building a new water pipeline (Discovery Research 2013)	• Costs of design and construction are higher than options 1 and 2 • Operational costs due to long distance of pumping the water • Feasibility of construction	• The construction of a new water pipeline was determined to be the preferred option due to the long-term benefits of addressing water quantity and quality challenges. • The City investigated both Peace and Murray rivers. The Peace River was determined to be better from a constructability perspective, and also would provide a larger and more secure water source compared to the Murray River.

Item	Alternative	Description	Potential benefits	Potential drawbacks	Outcome
5	Conservation	Reduce water usage through public education about water conservation, implementation of water-use policies and bylaws, or increased water rates	• The Sure Water Campaign indicated moderate support (62%) for increased public education measures about water conservation (Discovery Research 2013)	• The Sure Water Campaign indicated low support (34%) for water-use policies and bylaws or increasing water rates (Discovery Research 2013)	• The City continues to undertake water conservation measures as part of the Watershed Stewardship Program

6 Indigenous nations' interests

The Project overlaps the territories of McLeod Lake Indian Band, West Moberly First Nations, Halfway River First Nation, Saulteau First Nations, Horse Lake First Nation, Doig River First Nation, and Blueberry River First Nations, all of whom are Treaty 8 signatories (Government of Canada 1966). There are no First Nation Reserves (IR) that intersect with the Project.

The Project is also close to the community of Kelly Lake First Nation and communities that are members of the MNBC, including the Fort St. John Métis Society, Kelly Lake Métis Settlement, the North East Métis Association, Moccasin Flats Métis Society, and River of the Peace Métis Society (MNBC 2025).

According to a desktop archaeology review completed for the Project, several protected archaeological sites are located within the Project Study Corridor (Landsong 2025). Portions of the Project Study Corridor evaluated through the desktop archaeology review were determined to have high archaeological potential based on terrain and landform types, proximity to known archaeolgocial sites, and proximity to major and minor hydrological features. The Project will parallel existing and approved pipeline ROWs for approximately 85% of the route. Much of the Project Study Corridor has been previously subject to archaeological assessment and/or have existing development. Lands not previously subject to archaeological assessment have the potential to contain as-yet unidentified archaeological resources. Once a Project Footprint is determined, the archaeological permitting process will be determined based on archaeological potential, previous archaeological research in the area, and engagement with Indigenous groups and the Archaeological Branch.

The Project Study Corridor overlaps other major projects that are planned in the area, including the Taylor to Gordondale Pipeline Project. According to the Environmental and Socio-Economic Assessment done to support the Taylor to Gordondale Project (Stantec 2024), many of the Indigenous communities within the area use Crown land to conduct activities such as hunting, fishing, trapping and harvesting of food and medicinal plants. Project construction might affect current use of lands and resources by Indigenous Peoples through direct disturbance to areas that may be used for other purposes or through disturbances such as noise, dust or access restrictions. No additional effects on current use of lands and resources by Indigenous Peoples are expected during operation of the Project.

Efforts made to engage with Indigenous nations are described in the Engagement Plan. Engagement with First Nations has focused on early outreach to share the Project overview and begin discussions regarding Project routing, water sourcing, and anticipated areas of interest or concern. Following initial engagement, letters of support for the conditional water licence application were received from Doig River First Nation, Saulteau First Nations, and West Moberly First Nations (Appendix B of the Engagement Plan). In August 2025, Kelly Lake First Nation, whose members live, work, and exercise cultural practices in the Project area, provided

a letter of support for the Project (Appendix B of the Engagement Plan). The City is committed to ongoing engagement and information sharing with the Nation given their asserted traditional territory and expressed interest in the Project. Kelly Lake First Nation emphasized the sacred and cultural importance of water, the urgency of addressing water scarcity, and their intent to participate in discussions as the Project advances.

In July 2025, a project-specific information package, including the draft Initial Project Description, draft Engagement Plan, maps, and questionnaires, was distributed by email to Treaty 8 Tribal Association affiliated First Nations in advance of, and at, a presentation delivered at the July Treaty 8 Tribal Association meeting (materials provided in Appendix A of the Engagement Plan).Prophet River First Nation, Fort Nelson First Nation, West Moberly First nations, and Saulteau First Nation has representatives from Council at the meeting.

Overall, feedback from attendees was positive, with consensus on the urgency of securing a new water source in light of ongoing drought conditions. The City acknowledged the need for continued engagement as the Project advances and additional details become available.

The City continues to work to align engagement activities with nation-specific protocols and decision-making timelines. To inform the EP, an initial draft EP was shared with each identified First Nation for review and input prior to submission to the EAO.

Table 3 of the Engagement Plan summarizes engagement with First Nations. Further details regarding the engagement are included in the Indigenous Engagement Log (Appendix A of the Engagement Plan).

6.1 Treaty 8 Nations

6.1.1 Blueberry River First Nations

Blueberry River First Nations' territory is located north of the Project. The majority of Blueberry River First Nations' population reside at the Blueberry River 205, located 80 km northwest of the City of Fort St. John. Blueberry River First Nations has a registered population on and off reserve of 549 (Blueberry River First Nations 2025). Blueberry River First Nations is a signatory of Treaty 8.

In 2021, the BC Supreme Court ruled that the BC Government breached Blueberry River First Nations' Treaty 8 rights by development authorized by the provincial government over many years. The Court ordered the BC Government to work together with Blueberry River First Nations to develop land management rules that protect Blueberry River's Treaty rights. In 2023, Blueberry River First Nations and the Province of BC announced an Implementation Agreement in response to the 2021 BC Supreme Court decision. The Agreement pledges both parties to work together on a new approach to land and resource stewardship in Blueberry River First Nations's claim area (Blueberry River First Nations and the Government of BC 2023). The

Project is located within the Claim Area, but it does not cross priority areas identified within the Blueberry River First Nation Implementation Agreement (Blueberry River First Nations and the Government of BC 2023).

The City has initiated engagement with Blueberry River First Nations. The City will continue to engage with Blueberry River First Nations regarding the Project as it advances through design and regulatory processes.

6.1.2 Doig River First Nation

Doig River First Nation's territory is located north of the Project. Doig River First Nation's population is 335 people, and members live on and off reserve. Their community is located approximately 70 km northeast of the City of Fort St. John and is situated on approximately 2500 acres of land (Doig River First Nation 2025). The Nation holds several fee simple parcels of land in and near IR #206. Doig River First Nation is a signatory of Treaty 8. Doig River First Nation and the Province of BC have signed the Doig River Letter of Agreement, an agreement on land planning, shared decision-making and management initiatives (Doig River First Nation and the Government of BC 2023). Portions of the Project Study Corridor are located within Enhanced Management Zones identified by Doig River First Nation in the Consensus Document (i.e., associated with the Peace and Kiskatinaw rivers) however, no Project-related disturbance is anticipated within Enhanced Management Zones. For example, HDD techniques will be used to install the pipeline under the Kiskatinaw River, and a trenchless installation method will be used for the Peace River Valley slope.

The City has initiated engagement with Doig River First Nations. On November 4, 2024, Chief Trevor Makadahay submitted a Letter of Support for the water license application to Marianne Johnson, the Director of Authorizations for the Northeast Region. The Letter noted concerns of historic drought, and the potential benefits of the Project.

The City will continue to engage with Doig River First Nation regarding the Project as it advances through design and regulatory processes.

6.1.3 Halfway River First Nation

Halfway River First Nation's territory is located northwest of the Project. Halfway River First Nation's population primarily resides within Halfway River 168, near Wonowon and approximately 75 km northwest of the City of Fort St. John. Halfway River First Nation has a registered population on and off reserve of 304 (Halfway River First Nation 2025). Halfway River First Nation is a signatory of Treaty 8.

The City has initiated engagement with Halfway River Lake First Nation. The City will engage with Halfway River First Nation regarding the Project as it advances through design and regulatory processes.

6.1.4 Horse Lake First Nation

Horse Lake First Nation's territory extends into northeastern BC, but their primary location and government are based in Alberta. Horse Lake First Nation's population mainly resides within Horse Lake 152B, which is located west of Hythe, Alberta, approximately 57 km east of the Project. Horse Lake First Nation has a registered population on and off reserve of 1,435 (Crown-Indigenous Relations and Northern Affairs Canada [CIRNAC] 2025). Horse Lake First Nation is a signatory of Treaty 8.

The City has initiated engagement with Horse Lake First Nation. The City will continue to engage with Horse Lake First Nation regarding the Project as it advances through design and regulatory processes.

6.1.5 McLeod Lake Indian Band (Tse'Khene Nation)

McLeod Lake Indian Band's main office is located in McLeod Lake, BC. The main populated reserves are located on McLeod Lake 1 and McLeod Lake 5, located southwest of the Project (McLeod Lake Indian Band 2025). McLeod Lake Indian Band has a registered population on and off reserve of 618 (CIRNAC 2025). McLeod Lake Indian Band is a signatory of Treaty 8.

In 2024, McLeod Lake Indian Band and the Government of BC signed a Government-to-Government Agreement that establishes a shared decision-making process relating to provincial land and resource use approval applications (McLeod Lake Indian Band and the Government of BC 2024). The Project overlaps with the McLeod Lake Indian Band territory as depicted in the Agreement (McLeod Lake Indian Band and the Government of BC 2024). McLeod Lake updated their Land Use Plan in 2021 (McLeod Lake 2021) to guide land management and land uses of the McLeod Lake Indian Band reserve lands.

The City has initiated engagement with McLeod Lake Indian Band. The City will continue to engage with McLeod Lake Indian Band regarding the Project as it advances through design and regulatory processes.

6.1.6 Saulteau First Nations

Saulteau First Nations' territory is located east of the Project. Saulteau First Nations' population is based at East Moberly Lake 169 at the east end of Moberly Lake, approximately 20 km north of the District of Chetwynd and 90 km southwest of the City of Fort St. John. Saulteau First Nations has a registered on and off reserve population of 1,375 (Saulteau First Nations 2025). Saulteau First Nations is a signatory of Treaty 8.

The City has initiated engagement with Saulteau First Nations. On June 26, 2024, Chief Rudy Paquette submitted a Letter of Support for the water license application to Marianne Johnson, the Director of Authorizations for the Northeast Region. The Letter of Support noted concerns of historic drought, and the potential benefits of the Project.

The City will continue to engage with Saulteau First Nations regarding the Project as it advances through design and regulatory processes.

6.1.7 West Moberly First Nations

West Moberly First Nations' territory is located west of the Project. West Moberly First Nations' population is based in West Moberly Lake 168A at the west end of Moberly Lake approximately 90 km southwest of the City of Fort St. John. West Moberly First Nations has a registered population on and off reserve of 545 (CIRNAC 2025). West Moberly First Nations are a signatory of Treaty 8 and are in discussions with BC on land and resource issues outside the BC treaty process (Government of BC 2025b).

The City has initiated engagement with West Moberly First Nations. On July 10, 2024, Chief Roland Wilson submitted a Letter of Support for the water license application to Marianne Johnson, the Director of Authorizations for the Northeast Region. The Letter noted concerns of historic drought, and the potential benefits of the Project.

The City will continue to engage with West Moberly First Nations regarding the Project as it advances through design and regulatory processes.

6.2 Non-Treaty First Nations

6.2.1 Kelly Lake First Nation

The Kelly Lake First Nation community is located around Kelly Lake, approximately 70 km south of the Project. Kelly Lake First Nation has about 400 members, including those that live within the surrounding area (Kelly Lake First Nation 2025).

The City has initiated engagement with Kelly Lake First Nation. In August 2025, Kelly Lake First Nation, whose members live, work, and exercise cultural practices in the Project area, provided a letter of support for the Project (Appendix B of the Engagement Plan).

The City will continue to engage with Kelly Lake First Nation regarding the Project as it advances through design and regulatory processes.

6.3 Métis Chartered Communities

There are five Métis Chartered Communities located in northeastern BC, in the same region as the Project. The Communities closest to the Project are the North East Métis Association, based out of Dawson Creek, and the Fort St. John Métis Society, based out of Fort St. John. The full list of Métis Chartered Communities is in Table 4.

The MNBC, established in 1996, is the Métis government in BC, representing Métis Citizens and Métis Chartered Communities. The members of a Chartered Community elect their

community representative to represent their community by serving on the Métis Nation General Assembly, the governing legislative body of the MNBC (MNBC 2023).

Table 4 - Métis Chartered Communities

Métis communities	Associated municipality	Direction from the Project
North East Métis Association	Dawson Creek	West and south
Fort St. John Métis Society	Fort St. John	North
Kelly Lake Métis Settlement Society	Kelly Lake	South
Moccasin Flats Métis Society	Chetwynd	Southwest
River of the Peace Métis Society	Hudson's Hope	West

The City has not initiated engagement with Métis Chartered Communities. The City will engage with Métis Chartered Communities regarding the Project as it advances through design and regulatory processes.

7 Public and environmental safety

Accidents and malfunctions are rare unplanned events or conditions that could result from acts of nature, extreme weather events, human error, equipment failure, or other causes.

The following potential accidents and malfunctions could occur during construction of the Project:

- Leaks and spills to the environment
- Release of sediment laden waters to the environment
- Failure of erosion and sediment control measures
- Construction vehicle accidents
- Damage to utilities

Environmental factors could lead to potential effects on the Project's physical infrastructure or activities. These factors include events as a result of climate change or natural hazards such as seismic events, extreme weather events (including drought), and fire.

The Engagement Plan includes how the public and surrounding communities will be engaged further on the topic of public safety. Public safety issues identified will be considered in project planning and design. Best management practices will be applied during Project construction to reduce the likelihood and consequence of accidents and malfunctions. A Construction Environmental Management Plan (CEMP) and Health and Safety Plan will be developed and implemented by the Contractor. These plans will include emergency response procedures and mitigation measures to be applied during construction activities. The CEMP will include an Erosion and Sediment Control Plan and a Spill Prevention and Response Plan.

7.1 Atmospheric emissions

Sources of atmospheric emissions, including greenhouse gases and particulate matter, resulting from the Project are expected to be associated with construction activities due to the use of heavy mobile construction equipment and light vehicles. Once operational, the Project components will run on electricity with the exception of backup generators that may be used either in an emergency situation or for short durations during routine tests. During operation, emissions are anticipated to be limited to emissions associated with routine operation and maintenance activities, such as accessing the project components via light passenger vehicles for inspections and maintenance activities, and the use of power hand tools for vegetation management.

7.2 Solid, liquid, and hazardous waste

Waste materials may include packaging, off-cut pipe and shavings, wood, metal, electrical wire, structural, and other materials not incorporated in the facilities. During the construction phase of the Project, wastes produced will either be disposed of in accordance with applicable regulatory requirements, or will be reused or recycled, where feasible. A waste management plan will be developed as part of the CEMP to provide direction for hazardous and non-hazardous waste management and disposal.

Liquid discharges to the environment could occur as a result of potential spills or leaks from the use of conventional heavy machinery during the construction phase.

8 Existing biophysical environment

The Project Study Corridor is located within the Peace Natural Resource District and Moist Warm (mw) subzone of the Boreal White and Black Spruce (BWBS) Biogeoclimatic zone. The BWBS zone has a northern continental climate, and frequent forest fires, that results in various successional stages (DeLong, Annas, and Stewart 1991). The subzone represents the lower elevation area with a relatively moist and warm climate resulting in a longer growing season than higher elevation subzones. Much of the Project Study Corridor is proposed through areas of pre-disturbance and parallels existing linear disturbances to reduce impacts to the environment. The data collected for the purpose of the IPD was completed via desktop review of existing publicly available data, previously completed reports, and assessments. The data sources that were reviewed include:

- BC Conservation Data Centre (CDC; 2024)
- Recovery Strategy for Little Brown Myotis (Myotis lucifugus), Northern Myotis (Myotis septentrionalis), and Tri-colored Bat (Perimyotis subflavus) in Canada (2015)
- BC Ecosystem Explorer (Province of BC 2024a)
- Historical Hydrometric Data (Government of Canada 2025a)
- Species at Risk Public Registry (Government of Canada 2025b)
- Wildlife Tree Stewardship Atlas (CMN 2018)
- BC Great Blue Herons Atlas (2018)
- Migratory Bird Sanctuaries (Government of Canada 2024)
- Caribou in British Columbia (Province of BC 2025a)
- Recovery Strategy for Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada (Environment Canada 2014)
- Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal population, in Canada (Environment Canada 2012)
- Climate Projections for the BC Northeast Region (Fraser Basin Council 2019)
- City of Dawson Creek Water Strategy (HB Lanarc Consultant 2009)

The Project Study Corridor overlaps other major projects that are planned in the area. The studies completed to inform the Environmental and Socio-Economic Assessments for two of these projects were reviewed for the development of this IPD. The Project applications reviewed were:

- North River Midstream NEBC Connector Project (Stantec 2021)
- Pouce Coupe – Taylor to Gordondale Pipeline project (Stantec 2024)

8.1 Aquatic environment

The Project is proposed to originate at the Peace River and travel south across Kiskatinaw River to the City (Figure 3). The majority of the Project Study Corridor is within the Lower Peace River watershed with a middle portion of the Corridor overlapping with the Kiskatinaw River Watershed.

8.1.1 Fish and fish habitat

The proposed works will consist of instream works at the intake location along the south bank of the Peace River, along with various watercourse crossings along the pipeline corridor including a crossing at the Kiskatinaw River (Table 5). The Project is at the conceptual planning stage, and additional engineering and design work and technical studies will be undertaken to inform the final design and construction plans. The current plan is to cross the Kiskatinaw River via HDD.

Based on the Fresh Water Atlas for BC (CDC 2024) the Project corridor is anticipated to intersect with 17 watercourses (Table 5).

Table 5 - Preliminary watercourse crossings

Watercourse crossing #	Watercourse name	Documented fish
WC1	Peace River	Refer to Table 6.
WC2	Unnamed tributary to Peace River	No documented fish species. However, fish presence is assumed due to connectivity to Peace River. Refer to Table 6 for list of fish species.
WC3	Unnamed tributary to Peace River	No documented fish species. However, fish presence is assumed due to connectivity to Peace River. Refer to Table 6 for list of fish species.
WC4	Six Mile Creek	No documented fish species. However, fish presence is assumed due to connectivity to Peace River. Refer to Table 6 for list of fish species.
WC5	Unnamed tributary to Six Mile Creek	No documented fish species. However, fish presence is assumed due to connectivity to Peace River. Refer to Table 6 for list of fish species.
WC6	Unnamed tributary to Six Mile Creek	No documented fish species. However, fish presence is assumed due to connectivity to Peace River. Refer to Table 6 for list of fish species.
WC7	Unnamed tributary to Six Mile Creek	No documented fish species. However, fish presence is assumed due to connectivity to Peace River. Refer to Table 6 for list of fish species.
WC8	Unnamed tributary to Eight Mile Creek	No documented fish species. However, fish presence is assumed due to connectivity to Eight Mile Creek
WC9	Eight Mile Creek	Brook stickleback.

Watercourse crossing #	Watercourse name	Documented fish
WC10	Kiskatinaw River	Refer to Table 6.
WC11	Unnamed tributary to Kiskatinaw River	No documented fish species. However, fish presence is assumed due to connectivity to Kiskatinaw River. Refer to Table 6 for list of fish species.
WC12	Unnamed tributary to Coal Creek	No documented fish species. However, fish presence is assumed due to connectivity to Kiskatinaw River. Refer to Table 6 for list of fish species.
WC13	Unnamed tributary to Coal Creek	No documented fish species. However, fish presence is assumed due to connectivity to Kiskatinaw River. Refer to Table 6 for list of fish species.
WC14	Unnamed tributary to Coal Creek	No documented fish species. However, fish presence is assumed due to connectivity to Kiskatinaw River. Refer to Table 6 for list of fish species.
WC15	Saskatoon Creek	Brook Stickleback, Finescale Dace, Lake Chub, Longnose Dace, White Sucker
WC16	Unnamed tributary to Dawson Creek	No documented fish species. However, connectivity to Dawson Creek and potential for fish migration is assumed. Documented fish in Dawson Creek are Brook Stickleback, Burbot, Lake Chub, Lake Whitefish, Longnose Sucker Minnow (General), Redside Shiner Sucker (General), and White Sucker.
WC17	Unnamed tributary to Dawson Creek	No documented fish species. However, connectivity to Dawson Creek and potential for fish migration is assumed. Documented fish in Dawson Creek are Brook Stickleback, Burbot, Lake Chub, Lake Whitefish, Longnose Sucker Minnow (General), Redside Shiner Sucker (General), and White Sucker.

The Kiskatinaw River originates approximately 150 km south of the proposed Project, in Bearhole Lake Provincial Park and flows north into the Peace River, approximately 30 km downstream of the proposed works. The fish community has both spring and fall spawners. Table 6 lists the fish species that have been previously documented to the province within the Kiskatinaw River, however, additional species may be present, such as those documented within the Peace River.

The Kiskatinaw River has been heavily relied on for water use in the area, and many water management studies have highlighted the uncertainty and supply risks associated with the Kiskatinaw River water supply source (HB Lanarc Consultant 2009, Fraser Basin Council 2019, SHIFT Collaborative 2019).

The Project is proposing an intake location along the south bank of the Peace River approximately 2 km downstream from the Highway 97 junction near the District of Taylor, BC. This section of the Peace Riverbank is previously disturbed. Utilizing the existing disturbance

area will reduce riparian habitat impacts and cumulative effects along the Peace River. The Peace River originates on the downstream side of Dinosaur Lake Dam (W.A.C. Bennett Dam) and flows northeast across BC into Alberta and joins Slave River in northeast Alberta. There are both spring and fall spawners documented in the Peace River (Table 6). There are four species that have been listed as either Provincial or Federal conservation concern documented in the Peace River, these are bull trout (*Salvelinus confluentus)*, goldeye (*Hiodon alosoides*), spottail shiner (*Notropis hudsonius*), and westslope (Yellowstone) cutthroat trout (*Oncorhynchus clarki lewisi*).

Project planning and design will consider refinements that avoid or reduce impact to these fish and fish habitat. Mitigation plans will be developed prior to instream works as required to manage pathways of effects and minimize harmful alterations to fish and fish habitat. These plans will be adjusted as new site-specific information becomes available through future assessments and as project planning advances.

Provincial and Federal listing status are as follows:

- Provincial (Province of BC 2024a):
  - **Yellow:** Includes species or ecological communities that are apparently secure and not at risk of extinction.
  - **Blue:** Includes any native species or ecological community considered to be of Special Concern (formerly Vulnerable) in BC.
  - **Red:** Includes any native species or ecological communities that have, or are candidates for, Extirpated, Endangered, or Threatened status in BC.
  - **Unknown:** Includes species or ecological communities for which the Provincial Conservation Status is unknown due to extreme uncertainty
  - **No status:** Is assigned to the animal species record when all related infraspecies (e.g., subspecies, population, ecotype, etc.) in BC have been assigned to the Red, Blue, or Yellow List
- Federal (Government of Canada 2025b):
  - **Extinct:** A species that no longer exists.
  - **Extirpated:** A species that no longer exists in the wild in Canada but occurring elsewhere.
  - **Endangered:** A species facing imminent extirpation or extinction.
  - Threatened: A species that is likely to become endangered if limiting factors are not reversed.
  - **Special concern:** A species of special concern because of characteristics that make it is particularly sensitive to human activities or natural events.
  - **Not at risk:** A species that has been evaluated and found to be not at risk.

Table 6 - Documented fish in the Kiskatinaw River and Peace River

Common name	Scientific name	Provincial listing[1]	Federal listing[2]
Kiskatinaw River			
Arctic grayling	*Thymallus arcticus*	Yellow	--
Burbot	*Lota lota*	Yellow	--
Chub (general)	--	--	--
Dace (general)	--	--	--
Flathead chub	*Platygobio gracilis*	Yellow	--
Lake chub	*Couesius plumbeus*	Yellow	--
Lake whitefish	*Coregonus clupeaformis*	Yellow	--
Longnose dace	*Rhynichthys cataractae*	Yellow	--
Longnose sucker	*Catostomus catostomus*	Yellow	--
Mountain whitefish	*Prosopium williamsoni*	Yellow	--
Northern pike	*Esox lucius*	Yellow	--
Northern pikeminnow	*Ptychocheilus oregonensis*	Yellow	--
Northern redbelly dace	*Phoxinus eos*	Yellow	--
Peamouth chub	*Mylocheilus caurinus*	Yellow	--
Rainbow trout	*Oncorhynchus mykiss*	Yellow	--
Redside shiner	*Richardsonius balteatus*	Yellow	--
Sculpin (general)	*Cottoidea*	--	--
Slimy sculpin	*Cottus cognatus*	Yellow	--
Spoonhead sculpin	*Cottus ricei*	Yellow	Not at Risk
Trout-perch	*Percopsis omiscomaycus*	Yellow	--
Walleye	*Sander vitreus*	Yellow	--
White sucker	*Catostomus commersoni*	Yellow	--
Peace River			
Arctic grayling	Thymallus arcticus	Yellow	--
Brook stickleback	Culaea inconstans	Yellow	--
Brook trout	Salvelinus fontinalis	Exotic	--
Bull trout	*Salvelinus confluentus*	Blue	Special Concern
Burbot	*Lota lota*	Yellow	--
Cutthroat trout	*Oncorhynchus clarki*	No status	--
Dolly varden	*Salvelinus malma*	Yellow	--
Finescale dace	*Phoxinus neogaeus*	Yellow	--

Common name	Scientific name	Provincial listing[1]	Federal listing[2]
Flathead chub	*Platygobio gracilis*	Yellow	--
Goldeye	*Hiodon alosoides*	Blue	--
Kokanee	*Oncorhynchus nerka*	Not reviewed	--
Lake chub	*Couesius plumbeus*	Yellow	--
Lake trout	*Salvelinus namaycush*	Yellow	--
Lake whitefish	*Coregonus clupeaformis*	Yellow	--
Largescale sucker	*Catostomus macrocheilus*	Yellow	--
Leopard dace	*Rhynichthys falcatus*	Yellow	Not at Risk
Longnose dace	*Rhynichthys cataractae*	Yellow	--
Longnose sucker	*Catostomus catostomus*	Yellow	--
Minnow (general)	--	--	--
Mottled Sculpin	*Cottus hubbsi*	Blue	Special Concern
Mountain whitefish	*Prosopium williamsoni*	Yellow	--
Northern pearl dace	*Margariscus margarita*	No status	--
Northern pike	*Esox lucius*	Yellow	--
Northern pikeminnow	*Ptychocheilus oregonensis*	Yellow	--
Northern redbelly dace	*Phoxinus eos*	Yellow	--
Peamouth chub	*Mylocheilus caurinus*	Yellow	--
Prickly sculpin	*Cottus asper*	Yellow	--
Pygmy whitefish	*Prosopium coulteri*	Yellow	--
Rainbow trout	*Oncorhynchus mykiss*	Yellow	--
Redside shiner	*Richardsonius balteatus*	Yellow	--
Sculpin (general)	*Cottidae*	--	--
Slimy sculpin	*Cottus cognatus*	Yellow	--
Spoonhead sculpin	*Cottus ricei*	Yellow	Not at risk
Spottail shiner	*Notropis hudsonius*	Red	--
Sucker (general)	--	--	--
Torrent sculpin	*Cottus rhotheus*	Yellow	--
Trout-perch	*Percopsis omiscomaycus*	Yellow	--
Walleye	*Sander vitreus (formerly Stizostedion vitreum 10/05)*	Yellow	--
Westslope (Yellowstone) cutthroat trout	*Oncorhynchus clarki lewisi*	Blue	Special Concern

Common name	Scientific name	Provincial listing[1]	Federal listing[2]
White sucker	*Catostomus commersoni*	Yellow	--
Yellow perch	*Perca flavescens*	Unknown	--

[1] BC Ecosystem Explorer (Province of BC 2024a)[2] Species at Risk Public Registry (Government of Canada 2025b)

8.1.2 Wetlands

Based on the *Fresh Water Atlas for BC* (CDC 2024) the Project corridor is anticipated to intersect with a number of wetlands (Table 7). Wetlands in this area are anticipated to be marsh or swamp and heavily impacted by cultivation (DeLong, Banner, MacKenzie, Rogers, and Kaytor 2011). Desktop information on wetlands in BC is limited, field data will be collected to meet provincial regulatory standards and obtain secondary permitting as required. This will include but is not limited to determining accuracy of classification or specific delineations of wetland features. Project design will consider refinements that avoid or reduce impact to wetlands. Initial desktop wetland classification in Table 7 is based on the BC riparian classes of wetlands (W1-W5) (Province of BC 2024d).

- **W1:** Wetland that is great than hecatures-(ha)
- **W2:** Wetland between 1 to 5 ha in size and within biogeoclimatic zone PB, BG, IDFxh, xw, xm, CDF, or CWH ds, dm, or xm
- **W3:** Wetland between 1 to 5 ha in size and not within biogeoclimatic zone PB, BG, IDFxh, xw, xm, CDF, or CWH ds, dm, or xm
- **W4:** Wetland between 0.5 and 1 ha and in CDF or CWHxm, dm, ds biogeoclimatic zone or between 0.25 and 1 ha in BG, PP, or IDFxh, xw, xm biogeoclimatic zone.
- **W5:** A wetland complex that consists of two or more individual wetlands with overlapping riparian management areas and a combined wetland area of 5 ha or more.

Table 7 - Wetlands

Wetland ID	Classification[1]
WET1	W5
WET2	W5
WET3	W1
WET4	W3
WET5	W5
WET6	W5
WET7	W3
WET8	W5
WET9	Non-classified wetland
WET10	W1

Wetland ID	Classification[1]
WET11	W3

[1]*Riparian management area guidebook (Province of BC 2024e)*

Wetlands and riparian habitats are important and sensitive habitats that support diverse groups of wildlife and plant species. Additional species such as rare plants and wildlife (i.e., migratory birds, and ungulates) that utilize these areas are discussed further in the Terrestrial Environment section below. It is anticipated that these areas will be the focus of secondary permitting and associated fieldwork to confirm habitat, potential use, and species observations.

8.1.3 Hydrology

Climate projections show significant hydrology changes in the region. Models project a shift from snowmelt contributions to rainfall contributions into the Peace and Kiskatinaw watersheds. This would result in approximately a 30% decline in streamflow during summer (Fraser Basin Council 2019). By 2050, change in snowpack in the Kiskatinaw watershed is anticipated to see significant decreases compared to the Peace River (Fraser Basin Council 2019).

Environment Canada (Water Survey of Canada) has been collecting streamflow data for the Kiskatinaw River at Farmington since 1944 (Government of Canada 2025a). Consistent and uninterrupted data has been recorded since 1966. The Farmington gauging station is located approximately 15 km upstream from the Project Study Corridor. The average annual flow rate for the period between 1966 and 2023 is 10.4 m^3/s. The flow rates fluctuate seasonally, in response to snowmelt and rain events. Fluctuations from year to year also occur as a result of large-scale climactic variations. Seasonal low-flows typically occur during the winter period, between January and March. The highest flows are typically associated with the spring snowmelt and occur between May and July. However, severe summer rainstorms can cause high peak flows. For example, rainstorms during July in the past 20-years have been increasing and resulting in an average monthly flow rate comparable to spring runoff conditions. A review of the historical hydrometric records suggests that there may be a trend to higher peak flows during the late summer months.

There are several existing water allocations for the Kiskatinaw River including both short-term (temporary diversion) and long-term licenses. The average allocation is 4.3 % of the mean annual discharge (BCER 2025a).

Similarly, in the Peace River, Environment Canada has a streamflow station near Taylor that has been collecting data since 1944 (Government of Canada 2025a). This station is approximate 2 km upstream from the Project Study Corridor. The average annual flow rate between 1966 and 2023 is 1,435.5 m^3/s. Flow rates fluctuate seasonally, similar to the Kiskatinaw system, however, the lowest flow event was 202 m^3/s in September of 1968. Existing water allocations for the Peace River include both short-term (temporary diversion) and long-

term licenses. The Northeast Water Tool indicates that the average allocation is 0.6% of the mean annual discharge (BCER 2025a).

Five mapped aquifers overlap with the Project Study Corridor (Western Water Associates 2025). The vulnerability of the mapped aquifers to surface contamination has been rated as low to moderate (Western Water Associates 2025). The vulnerability assessment considers the thickness and extent of geologic materials above the aquifer, depth to the water table, and type of aquifer material (Lengyel et al. 2023). One mapped aquifer (Aquifer 687) located in the Taylor Flats area, south of the Peace River is an unconfined sand and gravel aquifer. A groundwater supply feasibility assessment determined that a groundwater supply developed in the Project area would likely source water from this aquifer (Western Water Associates 2025). An exploratory drilling program will be undertaken if this aquifer is further considered to be the source of groundwater for this Project.

8.2 Terrestrial environment

A desktop review of the terrestrial environment was conducted, and the following publicly available data showed no intersection with the Project Study Corridor:

- Caribou distribution
- Ungulate winter range
- Wildlife management areas
- Wildlife habitat area
- Provincial parks, eco reserves and protected areas
- Guide/outfitter areas
- Environmental Site Remediation Site
- Invasive Plant Markers

The majority of the landcover across the Project Study Corridor is agricultural, followed by forest land and then oil and gas infrastructure (Table 12). The majority of the Project Study Corridor parallels existing linear disturbances including roads and oil and gas infrastructure. Section 11 provides more information on existing land use and disturbances.

8.2.1 Vegetation and ecosystems

The Project Study Corridor is located within the Peace Natural Resource District and mw subzone of the BWBS biogeoclimatic zone. Common vegetation within this biogeoclimatic subzone consist of trembling aspen, white spruce, lack spruce, lingonberry, knights plume, and step moss (Meidinger and Pojar 1991).

CDC was reviewed for species and ecosystems at risk within the Project Study Corridor (Table 8). The data set reviewed was Species and Ecosystems at Risk - Publicly Available Occurrences – CDC (Province of BC 2025b). A probability of occurrence ranking was given to

each species. The rankings are based on suitable habitat potential, timing of last observation, consideration of habitat changes since the last observation, and time of year.

Table 8 - Vegetation Species at Risk in the Project Study Corridor

Common name	Scientific name	Provincial listing[1]	Federal listing[2]	Occurrence ID	Probability
Arkansas rose	*Rosa arkansana*	NA	NA	9840	Last observation of species was in 1978. The probability of occurrence is low.
Davis' locoweed	*Oxytropis campestris var. davisii*	Yellow	NA	16051	Located on the island in the Peace River. The last known documentation of the species was in 2022 and there is high probability of occurrence. However, Project Study Corridor has a small overlap with this island for informative reasons only, and there is a low probability the project footprint will interact with this area.
Heart-leaved buttercup	*Ranunculus cardiophyllus*	Red	NA	4871	Last observation of species was in 1958. The probability of occurrence is low.
Prairie buttercup	*Ranunculus rhomboideus*	Blue	NA	2763	Last observation of species was in 1932. The probability of occurrence is low.
Purple rattlesnake-root	*Nabalus racemosus*	Red	NA	5955	Last observation of species was in 1946. The probability of occurrence is low.

[1] BC Ecosystem Explorer (Province of BC 2024a)[2] Species at Risk Public Registry (Government of Canada 2025b)

Additional landcover and vegetation studies have taken place for recent project that overlap with the Project Study Corridor (Stantec 2021, 2024). These studies have identified additional vegetation species and ecological communities of management concern occurring within or close to the Project Study Corridor. Existing studies will be reviewed at future stages of this Project to inform Project planning.

This region is heavily impacted by the agricultural industry, and large portions of the Project Study Corridor intersect agricultural land reserve. A portion of the Project Study Corridor overlaps with Old Growth Management Area associated with the Kiskatinaw River and near the Peace River (Figure 3). The Old Growth areas are seral stages early to mature. There are no interactions with big-treed old growth. Project planning and design will prioritize refinements that avoid impact to Old Growth Management Areas.

The current available data does not show any invasive plant markers within the Project Study Corridor. However, invasive plants are common within roadside ditches and pre-disturbed areas of which the Project route is designed to intersect with frequently.

Where other projects in the area overlap with the Project Study Corridor there are documented plants such as:

- Weeds:
  - Canada Thistle
  - Common dandelion
  - Common sow-thistle
  - Quakgrass
  - Perennial sow-thistle
  - Smooth hawksbeard
  - Narrow-leaved hawkweed
  - Scentless mayweed
- Plant species of management concern:
  - Meadow willow

8.2.2 Wildlife and wildlife habitat

Wildlife species common with the BWBS biogeoclimatic zone include moose, caribou, gray wolf, black bear, and mule deer. The deciduous forests often have birds such as warblers, thrushes, vireos and flycatchers (Meidinger and Pojar 1991). Variations in habitat such as riparian area, wetlands, mixed forest, and plateaus offer habitat for various animals. Some common amphibians found within the riparian areas and floodplains, include common garter snake, western garter snake, western toad, and long-toed salamander (Meidinger and Pojar 1991).

In addition to the listed resources above, the province's Cumulative Effects Framework (CEF) was also reviewed, including:

- Interim Assessment Protocol for Grizzly Bear in BC: Standards for Assessing the Condition of Grizzly Bear Populations and Habitat under BC's CEF (Government of BC 2020)
- Interim Assessment Protocol for Moose in BC: Standards for BC's CEF Values Foundation (Government of BC 2018)

Grizzly bears have been extirpated from the lower Peace River basin due to dense agriculture and the presence of the communities of Fort St. John and the City and have therefore, not been assessed in many of the cumulative effects studies (Government of BC 2020). The probability of suitable habitat being intersected by the Project corridor is anticipated to be low.

A risk assessment has been completed that assessed the weighted habitat capability for Moose in winter and summer (Government of BC 2018). The weighted habitat capability is based on

broad ecosystem mapping and relative habitat quality. The majority of the Project Study Corridor crosses low to moderate habitat capability for Moose in both winter and summer. There are areas along the Peace River and Kiskatinaw River that intersect the Project Study Corridor with a ranking of high habitat capability in the winter and this increases to very high in the summer along areas of the Peace River.

Caribou are also common in northeastern BC, however both provincial and federal data sets show no local populations, herds or ecotypes within the Project Study Corridor. The closest herds are the Chinchaga and Quintette approximately 60 km north and 60 km south, respectively, of the Project Study Corridor (Province of BC 2025a).

Although sited along existing disturbance, this project may lead to further habitat fragmentation. This can reduce habitat availability, disrupt wildlife movement corridors, increase edge effects, and lead to higher rates of predation and human-wildlife conflict. While fragmentation cannot be entirely avoided, the Project is intentionally routed along existing disturbed areas to reduce the creation of new linear features and minimize additional impacts. Pre-construction assessments will confirm habitat suitability and help identify areas of lower ecological sensitivity to further limit effects on wildlife movement and connectivity. The Project Study Corridor is within Migratory bird nesting zone B5 with a restricted activity period between late April and late August. While the majority of the Project Study Corridor follows pre-disturbed locations, there are areas of mature vegetation that may provide foraging, shelter, and nesting habitat for birds, mammals, and herptiles.

CDC was reviewed for critical habitat and species and ecosystems at risk within the Project Study Corridor (CDC 2024). The data set reviewed was Species and Ecosystems at Risk - Publicly Available Occurrences – CDC (Province of BC 2025b). A probability of occurrence ranking was given to each species. The rankings are based on suitable habitat potential, timing of last observation, consideration of habitat changes since the last observation, and time of year. Results are provided in Table 9 below.

Table 9 - Critical habitat and species at risk within the Project Study Corridor

Common name	Scientific name	Provincial listing[1]	Federal listing[2]	Occurrence ID	Probability
Critical habitat					
Northern Myotis	*Myotis septentrionalis*	Blue	Endangered	22592	Habitat features described in the Recovery strategy may be present along some intersection with the Project Study Corridor within the first 10 km of northern portion of the Project Study Corridor (Figure 3). The probability of occurrence is moderate.

Common name	Scientific name	Provincial listing[1]	Federal listing[2]	Occurrence ID	Probability
Little Brown Myotis	*Myotis lucifugus*	Blue	Endangered	22585	Habitat features described in the Recovery strategy may be present along some intersection with the Project Study Corridor within the first 10 km of the northern portion of the Study Corridor (Figure 3). The probability of occurrence is moderate.
At risk species occurrence					
Black-throated Green Warbler	*Setophaga virens*	Blue	NA	1157	The Project Study Corridor overlaps a small area along the Peace River. Outside of nesting season, the probability of occurrence is low.
Canada Warbler	*Cardellina canadensis*	Blue	Special Concern	9222	The Project Study Corridor overlaps the edge of this habitat. Outside of nesting season, the probability of occurrence is low.
Upland Sandpiper	*Bartramia longicauda*	Red	NA	18006	Small area to the east of the polygon intersects the Project Study Corridor. The probability of occurrence is moderate.

[1] *BC Ecosystem Explorer (Province of BC 2024a)*[2] *Species at Risk Public Registry (Government of Canada 2025b)*

Additional wildlife studies have taken place for other projects that overlap with the Project Study Corridor (Stantec 2021, 2024). It is understood these studies have identified additional wildlife species occurring within or close to the Project Study Corridor. Some of the documented wildlife in these recent projects have included:

- Baltimore Oriole
- Barn Swallow
- Bank Swallow
- Black-throated Green Warbler
- Canada Warbler
- Horned Grebe
- Short-eared owl

Existing studies will be reviewed in more detail during future stages of this Project to inform project planning. Project-specific surveys will be undertaken as needed to inform construction planning and to obtain permits and approvals required for construction.

8.2.3 Terrain and soils

Terrain across majority of the project is flat with undulating hills. Steeper slopes occur near approaches in proximity to the Peace River, Kiskatinaw, and Eight Mile watercourse crossings. The Project Study Corridor crosses 10 soil subgroups, all with a high percentage (>50%) of either silt loam, silty clay loam, silty clay, or heavy clay (Province of BC 2021a). The soil subgroups being crossed are:

- Dark Grey Solod
- Solonetzic Gleysol
- Orthic Grey Luvisol
- Terric Fibric Mesisol
- Typic Mesisol
- Orthic Luvic Gleysol
- Terric Mesisol
- Orthic Regosol
- Dark Grey Luvisol
- Cumulic Regosol

The soil subgroups being crossed are at various stages of development, with some being more suited for agriculture and others being dominated by soils developed under various degrees of saturation.

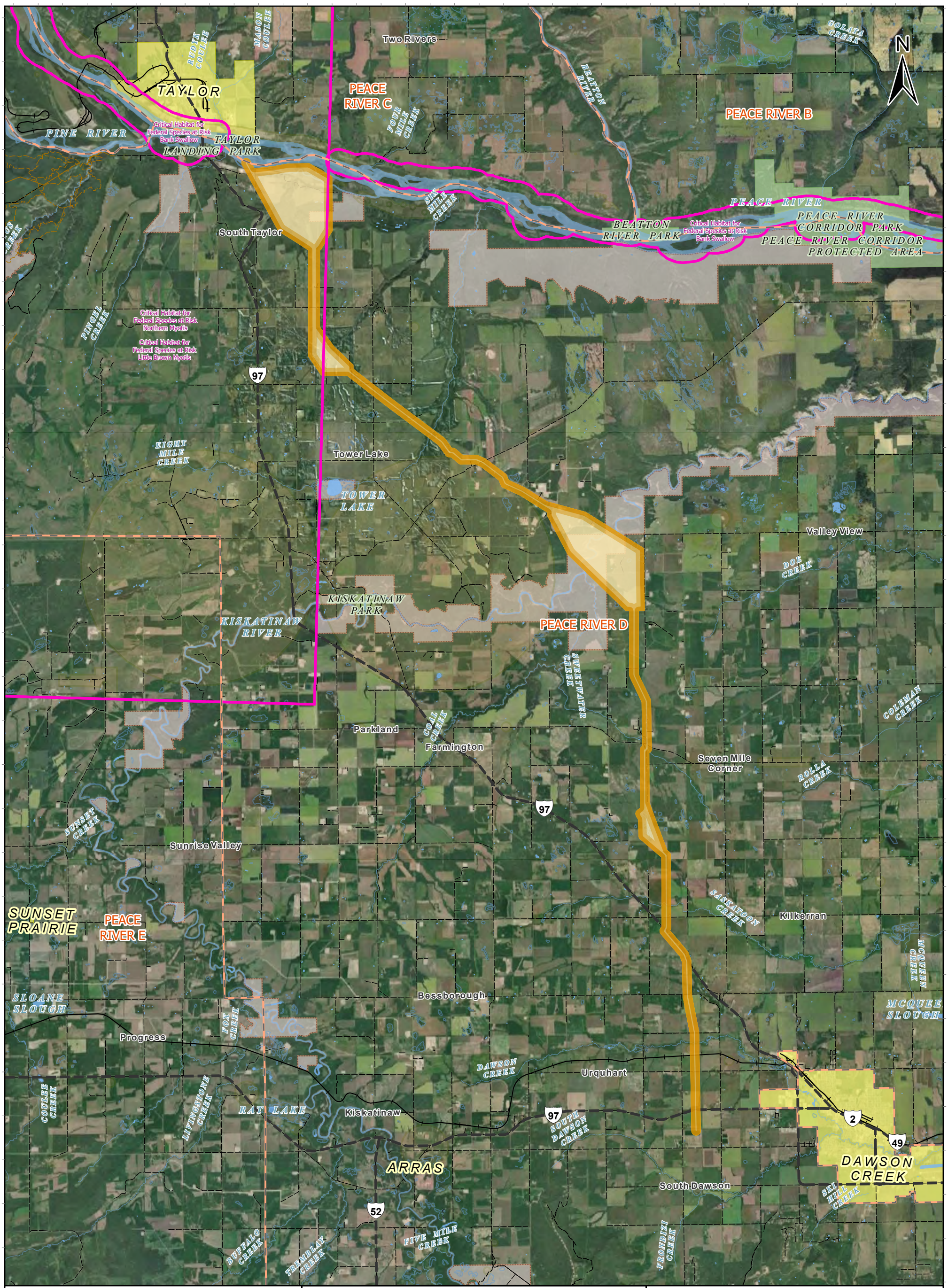
Much of the Project Study Corridor overlaps with Agricultural Land Reserve. The agricultural capability of the area surrounding the Project Study Corridor varies, with the majority of the Project Study Corridor overlapping with agricultural capability potential Classes 2, 3, 4, and 5.

Agricultural capability potential classes (Provincial Agriculture Land Commission 2013) are defined below:

- **Class 2:** Land in this class has minor limitations that require good ongoing management practices or slightly restrict the range of crops, or both
- **Class 3**: Land in this class has limitations that require moderate intensive management practices or moderately restrict the range of crops, or both
- **Class 4**: in this class has limitations that require special management practices or severely restrict the range of crops, or both
- **Class 5**: in this class has limitations that restrict its capability to producing perennial forage crops or other specially adapted crops

Conservation practices that may be employed are conservation tillage, direct seeding, crop rotation, growing forage crops, maintaining stubble to retain moisture and reduce soil erosion. In some cases, conservation practices could be implementing and/or maintaining wind barriers such as shelterbelts. In severe cases, conservation practices could include permanent seeding to tame pasture or not breaking the land and just allow for grazing. A small portion of the Project Study Corridor overlaps with Organic Soils, and the land adjacent to the Kiskatinaw and Peace Rivers is rated as Class 7, with no capability for arable culture or permanent pasture (Agriculture and Agri-Food Canada 2013).

A search of the Federal and Provincial Contaminated sites databases was undertaken as part of Western Water's desktop Groundwater Supply Feasibility Assessment for a portion of the Project Study Corridor south of the Peace River (Western Water 2025). Four registered sites were identified. Detailed reports for the registered sites indicated that independent remediation was undertaken and completed for all of the sites in 2024 under the supervision of environmental consultants. No other submissions were reported in the area assessed by Wester Water, including notices of offsite migration (Western Water 2025). A search of potential contaminated sites has not been done for remainder of the Project Study Corridor.



Legend

- Project Study Corridor
- Highway
- Road
- Recreation Trail Lines
- Railways
- PRRD Electoral Area Boundaries
- Critical Habitat for Federal Species at Risk
- Old Growth Management Area
- Hydrology
- Wetlands
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory

DC ENVIRONMENTAL LTD.

Environmental Setting Overview Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 2 4 6 8 km

Scale: 1:150,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N		Aug 13, 2025	Rev 1
Document Control: N/A	File Reference: Route Option A	Figure 3	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Environmental\PB-0002-25_DawsonCreek_WaterSupplySystem_EAO_EnvironmentalOverview_Map.aprx

9 Human environment and socio-economic setting

This section describes the local communities and socio-economic conditions of the surrounding area. The data collected for the purpose of the IPD was completed via desktop review of existing publicly available data, previously completed reports, and assessments. The data sources that were reviewed include:

- BC Stats Population Estimates (BC Stats 2025)
- The City of Dawson Creek website (the City 2024, 2025)
- Northern Health information on local health services (Northern Health 2025)
- PRRD website (PRRD 2025)
- Peace River South information on local schools (School District 59, Peace River South 2025)
- Statistics Canada Census Information. (Statistics Canada 2023)

The Project Study Corridor overlaps other major projects that are planned in the area. The studies completed to inform the Environmental and Socio-Economic Assessments for two of these projects were reviewed for the development of this IPD. The Project applications reviewed were:

- North River Midstream NEBC Connector Project (Stantec 2021)
- Pouce Coupe – Taylor to Gordondale Pipeline project (Stantec 2024)

9.1 Socio-economic conditions

The Project is primarily located in Area D of the PRRD. The PRRD is the largest regional district in BC at 119,000 km^2, with a population of 61,532 residents (Statistics Canada 2023). The PRRD includes seven municipalities and four electoral areas (PRRD 2025).

The economy of the PRRD is heavily focused on resource exploration and development associated with forestry, mining, natural gas and petroleum, and hydro-electric power generation. Linear corridors (roads, seismic lines, transmission lines, and pipeline corridors) associated with these activities are prominent throughout the region. Agriculture, manufacturing, and services also contribute to the regional economy (PRRD 2025, Northern Development 2022). Wind energy in the PRRD is a relatively new and expanding industry (PRRD 2025). The Alaska Highway serves as a major transportation corridor in the PRRD, and it is also a tourism draw for the region for visitors who come to experience the heritage and cultural features, natural features, scenery and communities associated with the Alaska Highway (the City 2024). Key summer activities include touring, camping, hiking, fishing and hunting, and winter activities including downhill and Nordic skiing, snow shoeing, hunting, and snowmobiling (the City 2024).

The Project is located within the Northern Health Authority. Dawson Creek and District Hospital, located in the City, is a full-service hospital serving the City and surrounding area (Northern Health 2025). Other local health services include the Dawson Creek Health Unit, Northview Assisted Living Community, general family practice offices and walk-in clinics (Norther Health 2025).

The City grew by an average of 1.2% from 2016 to 2021, whereas the Village of Pouce Coupe's population declined by 3.8% and the greater Electoral Area D population declined by 19% during that same period (Statistics Canada 2023). During this same time period, the provincial population has increased by an average of 7.6% (Statistics Canada 2023). The reason for the stagnant or declining population in the Northeast is likely due to a combination of factors, including an aging population, an out-migration of working-age individuals, limited immigration, and economic factors (BC Stats 2025, Northern Development 2022).

The Project begins at the District of Taylor where the intake is proposed and terminates at the City. The Project is also located in proximity to Pouce Coupe and the 12 unincorporated communities of Electoral Area D. Each community is described below.

9.1.1 The City of Dawson Creek

Incorporated in 1936, the City is one of the larger cities in northeast BC, located at the junction of Highways 97, 49, and 2 and the CN rail line (the City 2024). The City is a transportation hub between northeast BC and northwest Alberta.

The City has a labour force of 6,790 people, with a participation rate of 69.6%. At 9.8%, unemployment in the City is higher than the provincial and PRRD rates. Over 12% of the labour force is employed by the mining, quarrying, and oil and gas extraction industries. The average total income for the City in 2020 was $55,450, which was slightly higher than the provincial average (Statistics Canada 2021).

The City is the major service centre for the South Peace with a hospital, medical clinics, college, shopping mall, multiple restaurants and grocery stores (the City 2024). The City has six elementary schools, one secondary school, and one Distributed Learning School that offers courses from Kindergarten to Grade 12, all administered by School District 59, Peace River South (School District 59, Peace River South 2025).

9.1.2 Pouce Coupe

Pouce Coupe is located near the City and the BC-Alberta provincial border. The Village of nearly 800 residents includes an elementary school, library, municipal government office, post office, gas station and convenience store, museum, hotels and motels, and Royal Canadian Legion (Pouce Coupe 2025).

9.1.3 Taylor

The community was incorporated as the District of Taylor in 1989. Taylor has a fire department, library, golf club, parks, recreation facilities, a community pool, and district ice centre (District of Taylor 2022). Taylor has one elementary school, administered by School District 60, Peace River North (School District 60, Peace River North 2025).

9.1.4 Unincorporated communities of PRRD Electoral Area D

PRRD Electoral Area D includes the unincorporated communities of Arras, Bessborough, Cutbank, Doe River, Farmington, Kelly Lake, Kilkerran, One Island Lake, Rolla, Tomslake. Tower Lake, and Tupper. Most of the communities are agricultural and farming communities, as well as hunting, trapping, and fishing. One elementary school is located in Arras and one in Farmington. One Island Lake is a provincial park located in Electoral Area D (PRRD 2025).

9.1.5 Indigenous communities

The Project overlaps the territories of McLeod Lake Indian Band, West Moberly First Nations, Halfway River First Nation, Saulteau First Nations, Horse Lake First Nation, Doig River First Nation, and Blueberry River First Nations, all of whom are Treaty 8 signatories (Government of Canada 1966). There are no IRs that intersect with the Project.

The Project is also close to the community of Kelly Lake First Nation and communities that are members of the MNBC, including the Fort St. John Métis Society, Kelly Lake Métis Settlement, the North East Métis Association, Moccasin Flats Métis Society, and River of the Peace Métis Society (MNBC 2025).

Indigenous community information is provided in Section 6.

10 Legislative and regulatory context

10.1 Provincial Environmental Assessment

As per the BC *Reviewable Projects Regulation*, under the BC *Environmental Assessment Act* (EAA) a Water Management Project that exceeds the specified thresholds requires an EA through the BC EAO. The current proposed Project is a new Project and is anticipated to exceed the thresholds for a Water Management Project under two project categories (Table 10).

Table 10 - Reviewable Projects Regulation Criteria by Project Category

Project category	Criteria for a new project	Design criteria for the Project
Water diversion project	1) …a project incorporating new works that are a) Constructed for the diversion of water, and b) Designed to divert water at a maximum rate of ≥ 10 million m^3/year	The river intake would be used as a backup to the groundwater wells. The current design capacity is up to 14.6 million m^3/year
Groundwater extraction project	2) …a new project that *a)* consists of the extraction of groundwater from one or more aquifers, *b)* is operated intermittently or continuously for ≥ 1 year, and c) is designed to be operated so that groundwater is extracted at a rate of ≥ 75 l/s.	Estimated water extraction rates for the groundwater wells of an average initial flow of 115 l/s, and peak design flow of 463 l/s

The City is submitting the IPD as required under the BC EAA, to seek an exemption from the requirement for an EAC. An exemption allows a reviewable project to proceed without an Environmental Assessment Certificate (EAC) provided the project is constructed, operated and decommissioned in accordance with conditions. An exemption is issued at the end of the Early Engagement phase, provided the BC EAO considers that the project will not have a significant adverse environment, economic, social, cultural, or health effect, and will not have serious effects on an Indigenous nation or the constitutional rights of an Indigenous nation.

The Project is urgent and time-sensitive to address water scarcity, as described in Section 2.2. In the event that an exemption is not issued and the Project would require an EA, the City would incorporate the anticipated timeline for the assessment into the Project schedule. The City would work with the EAO, Indigenous nations, regulators, and interested stakeholders to expediate the EA process where possible.

10.2 Other anticipated permits and approvals

The Project is expected to require several federal and provincial permits and authorizations, in addition to the regulatory instrument required by BC EAO.

The anticipated list of permits and approvals, including potential triggers and application information requirements, is in Table 11. This list will be refined as project planning and design advances. Application requirements, including anticipated studies, plans, and engagement, are included in Table 11.

A water license for surface water and groundwater use will be required to permit the diversion and use of water for a specified purpose. A water license application will require information on environmental flow needs and mitigation measures to address potential impacts.

Table 11 - Anticipated key permits and approvals

Responsible agency	Authority/Act	Permit or approval	Potential trigger	Application requirements	Estimated agency review timeline	Project phase
Federal						
Environment and Climate Change Canda	*Species at Risk Act*	Section 73 Permit	Activities affecting wildlife species listed on Schedule 1 of SARA as extirpated, endangered, or threatened and which contravene SARA's prohibitions where they are in force. The general prohibitions apply to federal species (migratory birds, as defined by the Migratory Birds Convention Act, 1994, and aquatic species covered by the Fisheries Act) everywhere in Canada, and to other listed species where found on federal land.	Information specific to the species at risk, including effects of the project activities on the species and measures to mitigate impacts to the species. Alternatives considered, a description of monitoring, and a description of why the proposed activity will not jeopardize the survival or recovery of the species will be required. Offsetting may also be required.	90 days	Construction
Fisheries and Oceans Canada (DFO)	*Fisheries Act*	Request for Review or Authorization	Watercourse crossings or other activities with potential to cause serious harm to fish or fish habitat	A description of the aquatic environment and potential effects of the project. Offsetting may be required if an Authorization is required.	90 days	Construction
		Scientific Fish Collection Permit	Fish research and fish salvage	Description of the location and sampling program.	30 days	Pre-construction
Transport Canada	*Canadian Navigable Waters Act*	Minor Works Notice or No interference with navigation	Minor works are specific works that can be built, without review or approval, if they meet the criteria for the applicable class of works as well as specific terms and conditions, so that there is no interference with navigation.	Information on the body of water, land use and ownership, method of construction and anticipated impacts to navigation. The application has a public comment period.	90 days	Construction
Provincial						
BC EAO	EAA, 2018	EAC or Exemption Order	New works that are designed to divert > 10 million m^3/year, or a groundwater extraction project that is designed to be operated so that groundwater is extracted at a rate of ≥75 l/s.	An Exemption Order requires the preparation of an IPD, Engagement Plan, and Detailed Project Description. Engagement with First Nations and technical advisors is undertaken to inform the Project description development. The EAO will require information to demonstrate that the project will not have potential for significant adverse effects or serious effects on Indigenous nations or their rights, taking into account practical means of preventing or reducing these effects to an acceptable level.	Exemption: 6 months or more	Pre-construction
BC Ministry of Agriculture and Food	*Agricultural Land Commission Act*	Application for utility use within Agricultural Land Reserve	Utility located within lands under jurisdiction of the Agricultural Lands Commission	Information on the length and width of the proposed corridor, a description of proposed measures to reduce impacts to agricultural lands, and project drawings. If soil is to be removed or placed within the Agricultural Land Reserve, detailed soil surveys and agricultural capability analysis may be required, as well as detailed reclamation plan.	3 to 6 months	Construction
BC Ministry of Environment and Parks	*Environmental Management Act*	Waste discharge permit	An activity introduces waste into the environment from industries listed in the Waste Discharge Regulation. Also, the introduction of waste into the environment	Application requirements depend on the activity and type of waste to be released but typically require information on the activity and the characteristics of the waste.	4 to 12 months, or longer	Construction

Responsible agency	Authority/Act	Permit or approval	Potential trigger	Application requirements	Estimated agency review timeline	Project phase
			from any activity in a manner or quantity that causes pollution, as defined under the *Environmental Management Act.*			
		Soil Relocation form	Soil is being relocation from a location within 30 m of an area where commercial or industrial land use activity has occurred.	Information on the Project location and the receiving site location, the soil quality and characterization, and the characterization methodology.	7 days	Construction
		Spill Report	A spill of a listed substance in a prescribed quantity, or any spill of a listed substance to water, must be reported to the province.	The date and time, the location, a description of the spill site and surrounding area, a description of the circumstances, the type and quantity of substance spilled, and details of actions taken to respond to the spill.	--	Construction
BC Ministry of Forests	*Forest Act*	Occupation License to Cut	Felling of trees on public lands	Proof of occupancy, purpose for Crown timber cutting, access information, and information on riparian areas. First Nation consultation is required.	30 to 90 days	Construction
		Road Use Permit or Agreement	Use of a road with no existing Primary User. Permit is required for industrial users of Forest Service Roads unless an exemption is obtained by the district manager. An Agreement is needed for the use of a road with an existing Primary User	--	30 to 90 days	Construction
		Timber Transport Permit, Timber Mark	Transport of timber harvest from public lands using public roads	--	30 to 90 days	Construction
	Forest and Range Practices Act	Junction Permit	Connecting a road to a Forest Service Road	--	30 to 90 days	Construction
		Works Permit	Non-transportation related facilities constructed within a Forest Service Road ROW	--	30 to 90 days	Construction/Operations
	Forest Practices Code Act	Special Use Permit	New roads connecting tenured land to existing roads	--	30 to 90 days	Construction
	Weed Control Act	--	Noxious weeds must be controlled on the land occupied by the Project.	--		
	Wildfire Act	Burn Registration	Burning of timber waste	--	30 to 90 days	Construction

Responsible agency	Authority/Act	Permit or approval	Potential trigger	Application requirements	Estimated agency review timeline	Project phase
BC Ministry of Forests – Archaeology Branch	*Heritage Conservation Act*	Heritage Inspection Permit (HIP)	Required to assess impacts to archaeological materials.	An archaeologist is required to prepare the application for a HIP or HAP. The permit application requires information on the proposed project and potential impacts to archaeological sites. The HIP is required for field investigation. A HAP is required if impacts to a site cannot be avoided. Activities required to support the permit applications include a desktop Archaeological Overview Assessment, Preliminary Field Reconnaissance, and a Archaeological Impact Assessment. Applications are referred to Indigenous communities.	8 to 12 months	Pre-construction
		Heritage Site Alteration Permit (HAP)	If an archaeological site has the potential to be impacted by development activities		6 months to a year or more	Pre-construction/ Construction
BC Fossil Management Office	*Land Act*	--	Potential impacts to fossils. The Project is not within an Important Fossil Area.	Assessment of potential impact to fossils begins with a preliminary study. If this initial study indicates low or very low risk to fossil resources, a Chance Find Protocol needs to be developed in the event that fossils are uncovered during land disturbance. If the preliminary study indicates project activity is likely to encounter areas with medium and high risk to fossil resources, a Fossil Impact Assessment is required, including a Chance Find Protocol and Mitigation Plan.	--	Pre-construction
BC Ministry of Water, Land, and Resource Stewardship (WLRS)	*Land Act*	License of Occupation	Geotechnical boreholes	Information on the location and proposed use.	30 to 90 days	Pre-construction
		Statutory instrument to occupy Crown land (such as, Statutory Right of Way, Permit Over Crown Land)	Tenure to occupy Crown land	A Development Plan, all necessary consents, and location map and site drawings. Consultation with other landowners and leaseholders are needed to confirm property boundaries before a Crown Licence of Occupation can be obtained. Consultation is also required with First Nations.	3 to 6 months or more, depending on the statutory instrument required	Construction
BC Ministry of WLRS or the BC Energy Regulator (BCER)	*Water Sustainability Act/Energy Resources Activity Act*	Water License – Surface or Groundwater	The diversion, use or storage of water. A water license specifies the water source, water use purpose, the maximum quantity of water that may be used, and the works associated with the water use. WLRS would be the agency for permitting if more than 51% of the volume is utilized through City.	The name of the stream or aquifer that is the source of the water, the water use purpose and the quantity of water proposed to be diverted or stored for each water use purpose. A detailed description of the proposed works for the proposed diversion or use as well as location map and site drawings are also required. Engagement with First Nations and other potentially affected stakeholders is required. If proposed work will occupy Crown land, proof of authorization for the use of Crown land will be required.	1 year or more	Pre-construction/Construction

Responsible agency	Authority/Act	Permit or approval	Potential trigger	Application requirements	Estimated agency review timeline	Project phase
BC Ministry of WLRS	*Water Sustainability Act*	Section 11 Authorization	Changes in and about a stream, as defined under the *Water Sustainability Act*. A change approval is required to make complex changes in and about a stream. A notification is used for specified low risk changes in and about a stream that have minimal impact on the environment or third parties.	The name of the stream where changes are proposed, a start date and end date, and confirmation that works will occur within the approved regional timing window. A detailed project description and written consent from the landowner for the use of the land for any works and maps or drawings are also required.	3 to 6 months or more, depending on the potential impact	Construction
	Wildlife Act	Fish Collection Permit	Required as needed for field surveys and/or fish salvage associated with construction	Description of the location and sampling program.	30 days	Pre-construction/ Construction
		General Wildlife Permit	Required for handling or relocation of certain species, including amphibians	Species expected to be captured, location of capture and release, rationale, and description of methodology.	30 to 90 days	Pre-construction/ Construction
BC Ministry of Transportation and Transit (MOTT)	*Transportation Act*	Highway Use Permit	Required to construct utility works on provincial highway rights-of-way. They permit allows utility companies to install water lines, and requires certain standards and specifications be met for construction	Requirements include design plans and drawing in accordance with MOTT design standards, criteria and guidelines. MOTT will consider safety, traffic control, and environmental requirements during their evaluation of the application.	6 months or more, depending on crossing design	Pre-construction/ Construction
		Highway Access Permit	New access roads joining secondary and provincial highways	--	6 months or more	Construction
		Commercial Transport Permit	Hauling of large loads	--	30 days	Construction
		Infrastructure Upgrade Agreement	Upgrades to shoulders, secondary roads, bridges, culverts, or resource roads	--	3 to 6 months	Construction
		Crossing Permit	Crossing a provincial road with a large load.	--	30 days	Construction
	Transportation of Dangerous Goods Act	--	The transportation of dangerous goods in BC requirements compliance with prescribed safety requirements for all containers, packaging, road vehicles and rail vehicles, and the display of applicable safety marks. The *Transportation of Dangerous Goods Act* includes reporting requirements if a discharge, emission, or escape of dangerous goods occurs.	--	--	Construction
BC Ministry of Health	*Drinking Water Protection Act*	Waterworks Construction Permit (issued by provincial Health Authority).	Construction and operation of water system.	--	--	Pre-construction
	Public Health Act	Compliance with Public Health reports and advice on water treatment	Construction and operation of water system	--	--	Pre-construction, Construction, and Operation

Responsible agency	Authority/Act	Permit or approval	Potential trigger	Application requirements	Estimated agency review timeline	Project phase
Municipal						
The City	Official Community Plan (OCP)	Development Permit Application	Applications for new build – institutional within the City	--	30 to 90 days	Pre-construction
PRRD	South Peace Fringe Area (SPFA) OCP	OCP amendment and/or Development Permit Application	Development application within a Development Permit Area, or variance from a bylaw. A public utility project is permitted in all land use designations.	A development application would require a description of the project and plans and drawings.	30 to 90 days	Pre-construction
	Bylaw No.2121, 2014, Invasive Plant Control Bylaw	--	Occupier of Real Property shall not allow any Invasive Plant or Noxious Weed to grow on that Real Property.	--	--	Construction
First Nation						
Treaty 8 First Nation	--	Archaeology Permit	Some First Nations issue permits for archaeological work that is conducted in their traditional territory. These permits are in addition to the permit that is obtained from BC MWLRS. As per the Heritage Conservation Memorandum of Understanding (MOU; Government of BC 2010), all permit applications for proposed archaeological work in the MOU Zones will be delivered to the Treaty 8 First Nations.	Application requirements are First Nation specific but will likely require information on the proposed project and potential impacts to archaeological sites.	3 to 6 months or more	Pre-construction
Treaty 8 First Nation	Treaty 8 Agreements with the Province of BC	--	Development activity within Treaty 8 territory	Application requirements are specific to the agreements on land and resource issues between Treaty 8 Nations and the provincial government. Treaty 8 agreements are further discussed in Section 11.2.	n/a	Pre-construction
Other						
Northern Health	*Drinking Water Protection Act*	Source Water Approval Form	New drinking water source for a water supply system	Water system name and quality data. Groundwater source requires screening form or hydrology report.	3 to 6 months	Pre-construction
		Waterworks Construction Permit	Construction of new raw water source, treatment works, storage or distribution system	Description of proposed works, plans, and drawings, and source approval, if the source is new,	3 to 6 months	Pre-construction
Pipeline Companies	--	Approval for works in or near ROW	Required for activities located within or near a pipeline ROW	Engineered plans and drawings and compliance with pipeline company specifications and requirements.	3 to 6 months	Construction
BC Hydro	--	Approval for works in or near ROW	Required for activities located within or near a BC Hydro ROW	Engineered plans and drawings and compliance with BC Hydro specifications and requirements.	3 to 6 months	Construction
CN Rail	--	Approval for works in or near railway ROW	Required for activities located within or near a railway ROW	Engineered plans and drawings and compliance with CN Rail specifications and requirements.	3 to 6 months	Construction
Communication Utility Companies	--	Approval for works in or near infrastructure	Required for activities that may impact communication utility infrastructure	Engineered plans and drawings and compliance with utility company specifications and requirements.	3 to 6 months	Construction

Responsible agency	Authority/Act	Permit or approval	Potential trigger	Application requirements	Estimated agency review timeline	Project phase
Private property landowners	--	Agreement to encroach or occupy private property	Required for occupation or use of private property	--	3 to 6 months	Pre-construction

11 Land, water, and resource use, management plans, and agreements

11.1 Land, water, and resource use

The Project Study Corridor overlaps the Kiskatinaw River watershed and the Lower Peace River watershed. The Kiskatinaw River watershed is relatively large with an area of 2,800 km^2. Land uses within the watershed include rural residential, agriculture, rangeland, recreation, wild lands, and industrial (such as, timber harvesting, oil and gas extraction, aggregate mining, wind power generation and highways) (the City 2023a). Almost one-quarter of the watershed is covered by crop or rangeland, with the majority of the remaining lands being forested (Geoscience BC 2010a). The Lower Peace River Watershed extends east from Taylor, BC to the Alberta border. The Lower Peace River Watershed is part of the larger Peace River watershed that covers a total area of 302,500 km^2, with the BC portion covering 41,600 km^2 (Geoscience BC 2010b). Much of the Peace River Watershed is forested with significant natural gas exploration and production in the Montney shale gas formation. Agricultural production occurs near the community of Fort St. John and the City. The W.A.C. Bennett Dam is located in the most westerly part of the watershed, with the Peace Canyon Dam (Geoscience BC 2010b) and Site C Dam (BC Hydro 2023) located downstream.

Much of the Project Study Corridor overlaps with Agricultural Land Reserve and private land tenures, although there are portions of forested Crown land associated with the Kiskatinaw River and Peace River (Table 12). The Project overlaps with one trapper/outfitter area, held by South Slope Outfitters Ltd./Dean Keitsch (Figure 1).

The majority of the landcover across the Project Study Corridor is agricultural, followed by forest land and then oil and gas infrastructure (Table 12). There are several surveyed oil and gas well sites within the Project Study Corridor. The majority of the Project Study Corridor parallels existing linear disturbances including roads and oil and gas infrastructure (Figure 1). With the exception of areas associated with the Kiskatinaw River and Peace River valleys, the majority of the Project Study Corridor is located within a Human Disturbance ranked area, such as Rank 10 – Agricultural and Clearing, and Rank 3 – Oil and Gas Infrastructure (Pipeline, Ancillary, Well Sites) (Province of BC 2021b).

The current estimated landcover type and land ownership is based on the Project Study Corridor. The Project Study Corridor is wider at the Kiskatinaw River and Peace River crossing locations, which are also where there is forested and Crown land. Once the Project footprint is determined, the overall land cover and land ownership area will decrease, particularly for forest land and Crown land adjacent to the Kiskatinaw and Peace rivers.

Table 12 - Landcover type and land ownership for the Project Study Corridor

Land cover[1]		
Land cover type	***Area (ha)[3]***	***% of total [3]***
Forest Land	1,115.07	29.7%
Wetlands	81.74	2.2%
Agriculture and Clearing	2013.98	53.6%
Oil and Gas Infrastructure	403.65	10.7%
Land ownership[2]		
Land ownership type	***Area (ha) [3]***	***% of total [3]***
Private	2282.83	60.7%
Untitled Provincial	589.04	15.7%
Unclassified	236.85	6.3%
Crown Provincial	324.84	8.6%
Local Government	131.08	3.5%

[1] Land cover types are based on the BC Government's consolidated human disturbance dataset for British Columbia from Publicly Accessible Data (Province of BC 2023) Land cover type descriptions are based on the dataset. Land cover less than 2% are not included. Forest Land: forested areas or old burns. Wetlands: swamps, marshes, bogs or fens. Agricultural and clearing: clearings and agricultural areas. Oil and gas infrastructure: oil and gas pipelines, well facilities, and ancillary features.

[2] Land ownership is based on ParcelMap BC.

[3] Area and Percentage is based on the Project Study Corridor. As the Corridor is wider than what the Project Footprint will be, such as adjacent to the Peace and Kiskatinaw rivers, actual area impacted by the Project Footprint will be reduced, particularly for the forested land type and Crown land ownership.

11.2 Treaty 8 agreements

On June 29, 2021, the BC Supreme Court (BCSC) found that Blueberry River First Nations' treaty rights, and by extension, the rights of several Treaty 8 signatories, had been infringed by the cumulative effects of development (*Yahey v British Columbia*, 2021 BCSC 1287). Blueberry River First Nation and the Province of BC reached an agreement on a collaborative approach to land and resource planning within Blueberry River's Civil Claim Area, developed in response to the *Yahey* decision (Blueberry River First Nations and the Government of BC 2023).

In addition to the agreement with Blueberry River First Nation, the Province of BC is undertaking engagement with other Treaty 8 First Nations. In 2023, Letters of Agreement were signed with Doig River First Nation, Halfway River First Nation, and Saulteau First Nations (Doig River First Nation 2023; Halfway River First Nation 2023, Saulteau First Nations 2023) and new agreements were reached between the Province of BC and McLeod Lake Indian Band (McLeod Lake Indian Band and the Government of BC 2024). The Province and partner First Nations co-developed a set of initiatives, termed the Consensus Document (Province of BC 2023) to

address the cumulative impacts of industrial development on the meaningful exercise of Treaty 8 rights in the territory, restore the land, and provide stability and predictability for industry in the region. The initiatives set out in the Consensus Document include a new approach to wildlife co-management, new land-use plans and protection measures, and a cumulative effects management system, linked to natural resource landscape planning, and restoration initiatives (Province of BC 2023).

The Project Study Corridor overlaps with or is in close proximity to areas covered under these Letters of Agreement and other agreements on land and resource issues signed between Treaty 8 Nations and the provincial government (Table 13). At the time of writing, West Moberly First Nations and the Province are in discussions on land and resource issues.

Table 13 - Treaty 8 agreements

Agreement	Description	Project interaction
Blueberry River First Nations Implementation Agreement (2023)	An agreement to better protect Treaty 8 rights and support responsible natural resource development in Blueberry River's Civil Claim Area (Blueberry River First Nations and the Government of BC 2023).	The Project Study Corridor is within the Claim Area; it does not cross priority areas identified within the Blueberry River First Nations Implementation Agreement.
Doig River Letter of Agreement (2023)	An agreement on land planning, shared decision-making and management initiatives. (Doig River First Nation and the Government of BC 2023).	Portions of the Project Study Corridor are located within Enhanced Management Zones identified by Doig River First Nation in the Consensus Document (i.e., associated with the Peace and Kiskatinaw rivers) however, no Project-related disturbance is anticipated within Enhanced Management Zones. For example, HDD techniques will be used to install the pipeline under the Kiskatinaw River, and a trenchless installation method will be used for the Peace River Valley slope.
Halfway River First Nation Settlement Agreement (2024)	The purpose of the Agreement is to clarify the role of Halfway River First Nation within provincial decision making processes within the Settlement Agreement Area, to balance Halfway River First Nation Rights and the healing of the environment with a sustainable regional economy, and to re-establish a relationship of trust, cooperation and mutual respect between the Nation and the Province of BC (Halfway River First Nation and the Government of BC 2024).	The Project Study Corridor is outside of the Settlement Agreement Area.

Agreement	Description	Project interaction
Halfway River First Nation Letter of Agreement (2023)	The Agreement is to establish shared decision-making structure in Halfway River First Nation territory (Halfway River First Nation and the Government of BC 2023).	The Project Study Corridor is located outside of the boundaries specified in the Agreement.
McLeod Lake Indian Band Government to Government Agreement Amended and Restated (2024)	Establishes a shared decision-making process relating to provincial land and resource use approval applications (McLeod Lake Indian Band and the Government of BC 2024).	The Project Study Corridor overlaps with the McLeod Lake Indian Band territory, as depicted in the McLeod Lake Indian Band Government to Government Agreement.
Saulteau Letter of Agreement (2023)	Establishes a shared decision-making process relating to provincial land and resource use approval applications (Saulteau First Nations and the Government of BC 2023).	The Project Study Corridor is not located within the areas for enhanced management and restoration that have been identified by Saulteau First Nations within the Consensus Document (Saulteau First Nations 2023).
West Moberly Strategic Land and Resource Planning Agreement (2009)	The Agreement sets out a collaborative relationship between Treaty 8 First Nations and BC with respect to strategic land and resource planning (Doig River First Nation, Prophet River First Nation, and West Moberly First Nation and the Government of BC 2009). Doig River First Nation and Prophet River First Nations are also signatory to this Agreement.	The Project Study Corridor is within the Agreement Area.

The City will continue to engage with Treaty 8 Nations to understand and implement applicable mitigation measures during subsequent phases of the Project.

11.3 Land and water use plans

11.3.1 Regional

The southern portion of the Project overlaps with the SPFA, as indicated in the SPFA OCP Bylaw No. 2048, 2012. The SPFA-OCP focuses on the more densely populated area of the PRRD which coincide with the rural fire protection and building inspections areas, and includes a large part of Electoral Area D surrounding the City and the Village of Pouce Coupe. The SPFA-OCP aims to address unique land use and planning issues associated with this rural planning area. Goals under the SPFA-OCP include to support agriculture as a primary industry within the SPFA and to ensure protection of the availability of clean potable water in the SPFA (PRRD 2012). A public utility project is permitted in all land use designations.

The Project is outside of the boundaries of the City's OCP, however, the OCP includes policies applicable to this Project such as to continue to strategically enhance and expand the City's municipal water infrastructure and continue to develop the City's raw water infrastructure in order to continue providing high-quality water services to the City (the City 2018).

BC Hydro's Peace Water Use Plan (WUP) includes conditions for the operation and management of BC Hydro's Peace hydroelectric facilities. The WUP considers other licensed uses of water, riparian rights, fisheries, wildlife habitat, flood management, recreation, water quality, industrial use of water, First Nation considerations, archaeological considerations, and power generation (BC Hydro 2007). Since the WUP was released, BC Hydro has constructed the Site C dam, near Fort St. John. According to BC Hydro, the Site C Project will have only small effects on Peace River flows downstream of the dam. BC Hydro has a plan to monitor the downstream water flows and levels of Site C for 20 years after the reservoir is filled. Fisheries and aquatic habitat monitoring will continue to take place downstream for 30 years after the reservoir is filled (BC Hydro 2023).

11.3.2 First Nations

The Project is located within the High-Density Disturbance Sub-zone of the Southern Management Zone within Doig River First Nation's Land Use Plan (Doig River First Nation 2025b). The Southern Management Zone is highly impacted as it is dominated by private land tenures, agricultural production and urban centres as well as oil and gas tenures. Historically, this area was an integral part of Doig River First Nation's seasonal round, and there are still trails that link the community lands far south of the Peace River. Doig River First Nation's vision for the future include greater balance between cultural and ecological values and resource development, improvement policies and stewardship, and that efforts to layer impacts has reduced encroachment of resource development into intact areas. High Value Forest in the South High Density Management Zone are associated with riparian features such as streams, rivers, and lakes. The Plan also includes several Management Objectives that apply throughout the DRFN Planning Area for cultural resilience, healthy wildlife, healthy water, healthy land and prosperity (Doig River First Nation 2025b).

The Project is located within MOU Zone A of the Heritage Conservation MOU between the Province of BC and Doig River First Nation, Prophet River First Nation, and West Moberly First Nations (Doig River First Nation, Prophet River First Nation, and West Moberly First Nation and the Government of BC 2010).The MOU reflects a shared commitment to the protection and conservation of heritage resources during project development and resource extraction. Its primary intent is to establish processes for effective information sharing between the Province of BC and Treaty 8 First Nations, and to facilitate Treaty 8 First Nations' participation in heritage conservation activities. While the MOU identifies specific geographic areas for the purposes of its implementation, it does not limit or affect the rights of interests of other Indigenous groups.

The Project is outside of the lands identified in McLeod Lake Indian Band's Land Use Plan (McLeod Lake Indian Band 2021).

11.3.3 Provincial

The Project is within the Dawson Creek Land and Resource Management Plan (Government of BC 1999), which includes all Crown land within the Dawson Creek Forest District, a land area of approximately 2.9 million hectares in northeastern BC. The majority of the Project is located within the Agricultural/Settlement Provincial Land Use Category that includes land primarily planned and managed by local government, is currently used for or with future development potential, for agriculture and range, and is used for agriculturally compatible activities such as oil and gas exploration, transportation, utility and communication corridors, recreational developments, and forest management (Government of BC 1999).

11.4 Parks and Protected Areas

The Project Study Corridor does not intersect with federally or provincially designated parks, Wildlife Habitat Areas, Caribou Herd Range, or Wildlife Tree Retention Areas. The Project is not located within an Important Fossil Area. The Project overlaps with Old Growth Management Areas associated with the Kiskatinaw River.

Taylor Landing Provincial Park is located approximate 1.5 km north of the Project Study Corridor, associated with the Peace River. Kiskatinaw River Provincial Park is located 7.5 km west of the Project Study Corridor.

11.5 Cumulative effects initiatives

Cumulative effects are changes to environmental, social, and economic values caused by the combined effect of past, present and potential future human activities and natural processes (Province of BC 2024b). At the Provincial level, the CEF is a set of policies, procedures, and decision-support tools that helps identify and manage cumulative effects consistently and transparently across BC's natural resource sector (Province of BC 2024c). CEF values are approved provincial and regionally specific values that are important to the people of BC, are recognized as being sensitive to cumulative effects, and are periodically assessed and reported (Province of BC 2017). Through the CEF, five environmental values were prioritized for developing assessment procedures: forest biodiversity, old growth forest, aquatic ecosystems, grizzly bear, and moose. Standard assessment protocols defining the fundamental assumptions and procedures for assessing the condition of these values have been developed. These protocols have been identified as "interim" protocols to provide opportunities for structured evaluation during their initial implementation and to facilitate continued engagement with First Nations, stakeholders, and government staff (Province of BC 2017). Potential interactions with these values and the Project are considered in Section 12.

A Regional Strategic Environmental Assessment (RSEA) was initiated in the Northeast region of BC in 2018 to collaboratively address environmental issues of mutual interest to the Treaty 8 Nations and the Province of BC, such as those resulting from natural resource activities. Through the RSEA, five values were selected for assessment based on the interests of the Treaty 8 Nations and the Province of BC: moose, Old Forest, water, peaceful enjoyment, and environmental livelihoods (Province of BC 2024b). Potential interactions with these values and the Project are considered in Section 12.

12 Project Interactions

This section provides a summary of potential interactions of the Project with the biophysical and human environments, including Indigenous interests.

Valued Components (VCs) are representative of the important features of the natural and human environment that are likely to interact with the Project. VCs are selected based on the guidance outlines in the BC EAO's *Effects Assessment Policy* (BC EAO 2020). A preliminary assessment of potential Project interactions with VCs is identified in Table 14.

Potential interactions between the Project components and activities associated with the Project and VCs during construction and operation have been reviewed based on the conceptual plans available. The nature of the interaction was rated as:

- No or negligible interaction anticipated during construction or operation. Little to no interaction anticipated.
- Potential interaction during construction.
- Potential interaction during operation

A (+) sign is used if the potential interaction is positive.

The Province of BC has undertaken several initiatives to identify and manage cumulative effects in the northeast region (as described in Section 11.5).

Potential effects and preliminary mitigation measures are described in Table 15. This preliminary list of mitigation measures will be refined as project planning and design advances, and in consultation with Indigenous groups, regulatory agencies, and key stakeholders. Additional, site-specific mitigation measures will be developed during the permitting phase of the Project, in consultation with interested Indigenous groups and Qualified Environmental Professionals. Relevant mitigation from the BCER Treaty 8 Planning and Mitigation Measures document (BCER 2025b) will be considered and incorporated into the Project EMP.

Past, present and reasonably foreseeable projects with the potential for cumulative effects on VCs identified for this Project are described in Table 16. Projects were identified from a search of the following sources:

- British Columbia Major Projects Inventory (Government of BC 2025c)
- BCER Major Projects List (BCER 2025c)
- Government of Canada Major Projects Inventory (Government of Canada 2025c)
- Canadian Impact Assessment Registry (Government of Canada 2025d)
- CER REGDOCS (CER 2025)
- Environmental Assessments in British Columbia (EPIC) (Government of BC 2025d)

Preliminary mitigation to address potential cumulative effects are provided for each project type. As the Project Study Corridor follows established linear infrastructure corridors and previously disturbed areas, such as agriculture and oil and gas, the potential for cumulative effects is low.

Table 14 - Potential Project Interactions with Valued Components

Project component	Biophysical environment										Human and socio-economic environment				Indigenous rights and title		
	Air quality	Noise & vibration	Surface water hydrology	Surface water quality	Groundwater hydrology	Groundwater quality	Fish and fish habitat	Terrain and soil	Vegetation and ecosystems	Wildlife and wildlife habitat	Community health and well being	Infrastructure and services	Employment and economy	Non-traditional land and resource use	Archaeological and heritage resources	Indigenous rights and title	Indigenous interests and culture
Peace River Intake	C	C	C/O	C/O	--	--	C/O	C	C	C	O+	C/O+	C+	C	C	C	C
Groundwater Extraction Wells	C	C	C/O	C	C/O	C/O	C/O	C	C	C	O+	C/O+	C+	C	C	C	C
Water Transmission Pipeline	C	C	C	C	C	C	C	C	C	C	C	C/O+	C+	C	C	C	C
Pumping Stations	C	C/O	C	C	C	C	C	C	C	C	C	C/O+	C+	C	C	C	C

Legend: C = Potential interaction during construction, O = Potential interaction during operation, + = Potential interaction is positive, -- = No or negligible interaction anticipated during construction or operation.

Table 15 - Project effects and preliminary mitigations

Valued component	Potential effect	Preliminary mitigation
Biophysical environment		
Air quality	• Fugitive air emissions including greenhouse gases and particulate matter from vehicles and construction and operational activities can increase ambient particulate matter concentrations and greenhouse gas emissions	• Minimize removal of vegetation cover by using previously disturbed areas and linear corridors • Re-vegetate disturbed areas as soon as practical • Abide by municipal requirements for dust and air emissions so as not to be a nuisance to surrounding communities and residents. • Maintain equipment on a regular basis • Include air quality and dust control mitigation measures in the Project EMP
Noise and vibration	• Noise and vibration during construction and operation can affect human and wildlife receptors	• Maintain equipment on a regular basis • Abide by municipal requirements for noise so as not to be a nuisance to surrounding communities and residents. • Site Project components away from sensitive human and wildlife receptors, or use engineering controls on equipment to mitigate noise levels • Schedule activities during designated hours as stipulated in relevant noise control bylaws, when possible
Surface water hydrology	• Temporary changes in flow regime during construction • Change in groundwater-surface water interactions • Reduction in water demand from the Kiskatinaw River watershed	• Undertake an exploratory drilling program and other groundwater assessment to confirm the source of groundwater for this Project is able to meet the Project requirements without negatively impacting other surface water or groundwater hydraulic connections. • Avoid siting project components in or through wetlands and watercourses whenever possible • Use HDD to cross the Kiskatinaw River • Use trenchless installation methodologies where practical to minimize impacts to environmentally sensitive sites

Valued component	Potential effect	Preliminary mitigation
Surface water quality	• Change in water quality due to site runoff erosion/sedimentation and accidental spills or releases	• Include spill prevention and response measures and erosion and sediment control requirements in the Project EMP • Implement appropriate DFO standards and codes of practice
Groundwater hydrology	• Change in groundwater-surface water interactions	• Undertake an exploratory drilling program and other groundwater assessment to confirm the source of groundwater for this Project is able to meet the Project requirements without negatively impacting other surface water or groundwater hydraulic connections. • Implement groundwater management and monitoring plans during construction and operation of the Project
Groundwater quality	• Change in groundwater quality from contamination due to accidental spills or releases	• Include spill prevention and response measures and erosion and sediment control requirements in the Project EMP
Fish and fish habitat	• Change in quantity or quality of aquatic habitat during construction • Change in quantity or quality of aquatic habitat during operation	• Avoid siting project components in or through wetlands and watercourses whenever possible • Use HDD to cross the Kiskatinaw River • Implement appropriate DFO standards and codes of practice, including meeting DFO requirements for fish screens • Plan in-stream activities to occur within the least risk timing window, whenever possible • Engage a Qualified Environmental Professional (QEP) to determine potential pathways of effect and include appropriate mitigation in the Project EMP
Terrain and soil	• Change in soil profile or to terrain from site clearing and preparation activities • Changes in soil quality due to accidental spills or releases	• Includes best management practices for soil salvage, soil stockpile, and soil placement in the Project EMP • Include spill prevention and response measures and erosion and sediment control requirements in the Project EMP • Implement a reclamation plan to restore areas disturbed during construction • Trenchless installation method to be used in the Peace River valley slope
Vegetation and ecosystems	• Temporary loss and/or alteration of vegetation or ecosystems from land clearing for construction activities • Permanent loss and/or alternation of vegetation or ecosystems for aboveground Project components	• Implement appropriate best management practices to avoid or mitigate impacts to vegetation and ecosystems • Avoid and/or minimize Project interactions with sensitive species or ecosystems at risk • Avoid and/or minimize Project interactions with OGMA • Implement a reclamation plan to restore areas disturbed during construction
Wildlife and wildlife habitat	• Temporary loss and/or alteration of wildlife habitats, including migratory bird habitat, from land clearing and other construction activities • Permanent loss and/or alteration of wildlife habitat for aboveground Project components	• Implement appropriate best management practices to avoid or mitigate impacts to wildlife and wildlife habitat • Avoid and/or minimize Project interactions with sensitive species or species at risk • Conduct habitat clearing outside of the migratory bird nesting period whenever possible • Engage a QEP to determine the potential for species and/or suitable habitat to occur within the Project Study Corridor. This should include, but is not limited to Northern Myotis, Little Brown Myotis, Canada Warbler, Upland Sandpiper, and moose. QEPs are to include appropriate mitigation in the Project EMP.

Valued component	Potential effect	Preliminary mitigation
Human and socio-economic environment		
Community health and well being	• Changes to community and individual health and wellbeing due to effects during construction • Increased levels of noise that may cause stress or harm, such as sleep disturbance • Reliable access to water, contributing to improved human health and fire response capabilities	• Develop project health and safety plans • Maintain equipment on a regular basis • Site project components away from sensitive human and wildlife receptors, or use engineering controls on equipment to mitigate noise levels • Schedule activities during designated hours as stipulated in relevant noise control bylaws, when possible • Conduct engagement with Indigenous nations, local residents, and community organizations to identify and address potential Project effects to community health and well being
Infrastructure and services	• Increased levels of traffic during construction • Change to local community services and infrastructure due to either Project demand or Project-drive change	• Implement a traffic management plan • Work with local government authorities and health and emergency service organizations to plan for and adjust to changes in service demand during construction • Use trenchless installation methodologies where practical to minimize impacts to existing infrastructure
Employment and economy	• Provincial and local economic stimulus due to Project procurement and contracting for goods, services, and personal services, and consumer spending of workers • Employment, income and local government revenue generation • Increase in employment levels, employment income and training opportunities for local workforce • Changes to local government expenditures during construction and operation • Regional economic benefits of increased water security	• Implement skills inventory, training, and skills development with Indigenous nations and local communities • Plan for local and Indigenous nation procurement opportunities for goods and services
Non-traditional land and resource use	• Changes to use of and/or access to certain public lands and waters during construction and operation of the Project • Temporary loss or impacts to hunting, trapping, or gathering during Project construction	• Seek input on current land use during engagement, and establish mitigations to avoid or reduce potential impacts to land and resource use during construction and operation
Indigenous rights and title		
Archaeological and heritage resource	• Effects to archaeological and heritage resources during construction of the Project	• Conduct an archaeological impact assessment to identify previously undocumented archaeological sites within the Project Study Corridor. Incorporate the results, including mitigation measures, into the Project EMP • Adjust project alignments or footprint to reduce or avoid archaeological site impacts where practicable • Consider the use of construction techniques to avoid or reduce the degree of potential impacts to known archaeological sites • Where possible, avoid ground-disturbing activity within known archaeological sites. If disturbance to archaeological sites is anticipated to occur, implement mitigation strategies in consultation with Indigenous nations and the Province of BC • Specific measures and steps to be followed in the event of a heritage resource chance find during Project construction will be provided in a Project-specific Cultural Resource Discovery Contingency Plan.
Indigenous rights and title	• Involves land use planning and decision-making, which are shared authorities between the Province of BC and Indigenous communities	• Continue with direct consultation and joint planning and decision making that aligns with current joint management plans between the Province of BC and Indigenous communities

Valued component	Potential effect	Preliminary mitigation
Indigenous interests	• Change in the ability to access preferred locations used for traditional purposes • Potential impact to unknown Indigenous features or values • Changes in presence, abundance, distribution or quality of a natural resource that is used for traditional purposes • Temporary change in the quality of experience associated with the current use of lands and resources for traditional purpose as a result of Project activities such as noise, dust, light, traffic etc. • Changes to socio-economic status, community well-being, and cultural sustainability as a result of the Project	• Work cooperatively with Indigenous nations to identify concerns and develop specific mitigation plans that address the use of lands and resources • Incorporate traditional knowledge and traditional land use into Project planning • Maintain an ongoing dialogue with Indigenous nations to ensure that specific interests and topics of concern are understood and there is a mutually agreeable approach to address these interests and topics of concern • Implement mitigation as noted earlier to address noise, dust, light, and traffic concerns

Table 16 - Past, present and reasonably foreseeable projects in the area with potential for cumulative effects

Type of Project or Activity	Existing or proposed project	Status	Cumulative effect mitigation	Potential for cumulative effect
Infrastructure	BC Hydro Site C Clean Energy Project	In operation	• Undertake an exploratory drilling program and other groundwater assessment to confirm the source of groundwater for this project is able to meet the project requirements without negatively impacting other surface water or groundwater hydraulic connections. • Site project components within or adjacent to existing or proposed project corridors. • Implement construction mitigation as identified in Table 15 • Operate Project in accordance with water license conditions	Low likelihood.
	Northern Health Dawson Creek Hospital Revitalization	Construction underway	• Implement construction mitigation as identified in Table 15	Low likelihood.
Linear projects	Northriver Midstream NEBC Connector Project	Planned	• Site project components within or adjacent to existing or proposed project corridors. • Implement construction mitigation as identified in Table 15	Low likelihood
	Pouce Coupé Pipe Line Ltd. Taylor to Gordondale Project	Planned		Low likelihood
	Enbridge Frontier Project	Planned		Low likelihood
	TC Energy Coastal Gas Link	In operation		Low likelihood
	TC Energy 2021 NGTL System Expansion Project	In operation		Low likelihood
Facility projects	EDF Renewable's Taylor Wind Project	Planned	• Site project components within or adjacent to existing or proposed project corridors. • Implement construction mitigation as identified in Table 15	Low likelihood
	Dawson Creek Liquid Nitrogen Plant	In operation		Low likelihood
	Dawson Liquids Extraction	In operation		Low likelihood
	Saturn 15-27 Sweet Gas Plant	In operation		Low likelihood
	Air Liquide Liquid Nitrogen Plant	In operation		Low likelihood
	Encana 8-21 Refrigeration	In operation		Low likelihood
	Bear Mountain Wind Park	In operation		Low likelihood
	Taylor Gas Liquids Limited Partnership Younger NGL Plant Expansion	In operation		Low likelihood

13 Conclusion

The Project is proposed to provide a reliable source of fresh water for the City's municipal water treatment and distribution system. The City has seen an increase in the need for emergency conservation responses, underscoring the need to urgently secure a reliable and sustainable backup water supply.

Anticipated regional benefits of the Project include providing improved water access for local communities, businesses, agriculture, fire protection, and industrial operations. The Project is expected to generate tax revenue and support ongoing economic activity in the region. The Project Study Corridor follows established linear infrastructure corridors and previously disturbed areas, with over 50% of the Project Study Corridor overlapping agricultural lands, and approximately 11% of the Project Study Corridor overlapping lands used for oil and gas. Over 60% of the Project overlaps with private land tenures. The final Project footprint is anticipated to be over 90% private land tenure, once the final pipeline footprint is determined at the Kiskatinaw and Peace River crossings. Further, approximately 85% of the Project is being planned adjacent to existing proposed Project corridors.

The Peace River has been selected as the water source, as it will provide a larger and more secure source of water compared to the Kiskatinaw River. Hydrology modelling from the Northeast Water Tool indicates that the Peace River has a mean annual discharge of 1,431 m^3/s, compared to the mean annual discharge of 10.3 m^3/s for the Kiskatinaw River (BCER 2025a). The current average allocation for the Peace River is 0.6% of the mean annual discharge (BCER 2025). This maximum proposed withdrawal rate for this Project would be less than 0.03% of the Peace River's annual discharge.

The Project is at the conceptual planning stage, and additional engineering work and technical studies are planned or underway to support design and construction planning. Engagement and technical studies will also be undertaken to support regulatory processes for other required permits and approvals (such as, water licensing). The Proponent will work with Indigenous nations, regulators and stakeholders to refine the Project design and layout. The final design and construction plan will incorporate inputs from the results of technical studies as well as the outcomes from consultation and engagement.

The IPD has been prepared to initiate the Early Engagement phase of the BC EA process. Following the public engagement period, a Detailed Project Description will be prepared incorporating input provided by Indigenous nations, regulators, and the public. As well, the Project will require several permits and approvals prior to construction.

Based on potential interactions of the Project with the biophysical and human environments, including Indigenous interests, several VCs have the potential to be effected during construction, and some VCs are expected to experience effects during operation of the Project.

Some effects on the human and socio-economic environment are anticipated to be positive. Avoiding or reducing potential negative impacts to VCs will be considered as Project planning and design advances. Engagement will continue as Project planning and design advances, including through secondary permitting processes and regulatory reviews that provide additional opportunities for input. Site-specific mitigation measures will be developed during the permitting phase of the Project. The City remains committed to working respectfully with affected communities to incorporate feedback, mitigate potential impacts.

The City is committed to ensuring that all applicable environmental, archaeological, and regulatory requirements are addressed through secondary permitting processes. Based on the Project's scope, location, and proposed mitigation measures, significant adverse environmental, economic, social, cultural, or health effects, or serious effects to an Indigenous nation are not anticipated. Potential impacts will be identified and addressed through ongoing engagement and the applicable permitting and regulatory review processes to ensure full compliance and protection of environmental, archaeological and Indigenous values.

14 References

Agriculture and Agri-Food Canada. 2013. Canada Land Inventory - Land Capability for Agriculture. https://sis.agr.gc.ca/cansis/nsdb/cli/classdesc.html. Accessed: May 2015.

BCER. 2025a. Northeast Water Tool. https://water.bcogc.ca/. Accessed: August 2025.

BCER. 2025b. Treaty 8 Planning and Mitigation Measures. Version 1.3: June 2025. https://www.bc-er.ca/files/operations-documentation/Environmental-Management/Treaty-8-Planning-and-Mitigation-Measures.pdf. Accessed: August 2025.

BCER 2025c. Major Projects. https://www.bc-er.ca/what-we-regulate/major-projects/. Accessed: August 2025.

BC Hydro. 2007. *Peace Project Water Use Plan. Revised for Acceptance for the Comptroller of Water Rights*. August 21, 2007. BC Hydro

BC Hydro. 2023. *Site C Project. Downstream effects on the Peace River*. July 2023. BC Hydro.

BC Ministry of Forests. 2024. *Drought in a Changing B.C. Climate*. Presentation by Vanessa Foord, Research Climatologist, North Area. B.C. Ministry of Forests. FPBC Webinar: Nov 26, 2024. https://www.fpbc.ca/wp-content/uploads/2024/12/2024-11-26-FPBC-w-Drought-Foord.pdf. Accessed: May 2025

BC Stats. 2025. *Population Estimates of B.C. Regional District level and Outlook for 2046*. February 21, 2025. https://www2.gov.bc.ca/assets/gov/data/statistics/people-population-community/population/population_projections_regional_district_level.pdf Accessed: May 2025.

Blueberry River First Nations. 2025. About Us. https://blueberryfn.com/about-us/. Accessed: May 2025

Blueberry River First Nations and the Government of BC. 2023. *Blueberry River First Nations Implementation Agreement. Dated: 18th of January, 2023*. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/agreements/blueberry_river_implementation_agreement.pdf. Accessed: May 2025.

Canada Energy Regulator. 2025. CER REGDOCS. https://apps.cer-rec.gc.ca/REGDOCS/Home/Index. Accessed August 2025.

CDC (Conservation Data Centre). 2024. iMapBC. https://www2.gov.bc.ca/gov/content/data/geographic-data-services/web-based-mapping/imapbc. Accessed: May 2025.

CIRNAC (Crown-Indigenous Relations and Northern Affairs Canada). 2025. *Search by First Nation*. https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/index.aspx?lang=eng. Accessed: May 2025.

The City (City of Dawson Creek). 2018. Official Community Plan. Bylaw No.4373, 2018. Consolidated version.

The City. 2021. *City of Dawson Creek 2021 Drinking Water Quality Annual Report*. May 2022. Prepared by The City of Dawson Creek.

The City. 2023a. *Water Scarcity Management Plan for the City of Dawson Creek*. June 2023. Ministry of Emergency Management and Climate Readiness (EMCR), City of Dawson Creek.

The City. 2023b. *City of Dawson Creek Water Usage Update 2022*. February 2023. City of Dawson Creek.

The City. 2024. *Dawson Creek Community Tourism Plan*. March 31, 2024. City of Dawson Creek.

The City. 2025a. *Watershed Program.* https://www.dawsoncreek.ca/en/Home-Property-Utilities/watershed-program.aspx. Accessed: May 2025.

The City. 2025b. *Water and Sewer Treatment*. https://www.dawsoncreek.ca/home-property-utilities/water-and-environment/water-and-sewer-treatment/. Accessed: August 2025

The City. 2025c. Arras Weir Water Levels and Discharge (1999 to 2025) – Discharge Graph. City of Dawson Creek

The City. 2025d. *City of Dawson Creek Exploring Options for Alternative Water Supply*. July 15, 2025. City Hall News. https://www.dawsoncreek.ca/news/posts/city-of-dawson-creek-exploring-options-for-alternative-water-supply/ Accessed: August 2025.

The City. 2025e. *State 2 Water Conservation Measures in Effect July 25, 2025*. July 22, 2025. City Hall News. https://www.dawsoncreek.ca/news/posts/stage-2-water-conservation-measures-in-effect-july-25-2025/ Accessed: August 2025.

Community Mapping Network (CMN).2018. Great blue heron (gbhe) management team. https://www.cmnbc.ca/atlasgallery/great-blue-heron-gbhe-management-team/. Accessed: May 2025.

CMN. 2018. Wildlife Tree Stewardship. https://www.cmnbc.ca/atlasgallery/wildlife-tree-stewardship/. Accessed: May 2025.

DeLong, C., R.M., Annas and A.C., Stewart. 1991. Chapter 16: Boreal White and Black Spruce Zone in Ecosystems of British Columbia Eds. Meidinger, D. and J. Pojar. https://sherwoods-forests.com/Downloads/BGC-zones-of-British-Columbia.pdf. Accessed: May 2025.

DeLong, C., R.M., Banner A., MacKenzie W.H., Rogers B. J., and Kaytor B. 2011. A Field Guide to Ecosystem Identification for the Boreal White and Black Spruce Zone of British Columbia. https://www.for.gov.bc.ca/hfd/pubs/Docs/Lmh/Lmh65.pdf. Accessed: May 2025

Discovery Research. 2013. *2013 Dawson Creek Water Survey. Detailed Report on Findings*. Prepared For the City of Dawson Creek. Prepared by Discovery Research. Sure Water Dawson Creek. April 2013.

District of Taylor. 2022. *About Taylor*. https://districtoftaylor.com/about-taylor/. Accessed: May 2025.

Doig River First Nation. 2025a. *About Us*. https://doigriverfn.com/about/about-doig-river/. Accessed: May 2025

Doig River First Nation. 2025b. NAN WÚÚJ Ǫ T'AA DÂAH'ÁAʔ. Land Use Plan for the Territory. Last Reviewed January 2025. https://doigriverfn.com/lup/. Accessed: August 2025.

Doig River First Nation and the Government of BC. 2023. *Letter of Agreement*. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/agreements/doig_-_letter_of_agreement_20230306.pdf. Accessed: May 2025.

Doig River First Nation, Prophet River First Nation, and West Moberly First Nation and the Government of BC. 2010. *Heritage Conservation Memorandum of Understanding (MOU).* https://www2.gov.bc.ca/assets/gov/zzzz-to-be-moved/9efbd86da302a0712e6559bdb2c7f9dd/9efbd86da302a0712e6559bdb2c7f9dd/agreements/heritage_mou_doig_prophet_moberly.pdf. Accessed: May 2025.

Doig River First Nation, Prophet River First Nation, and West Moberly First Nation and the Government of BC. 2009. Strategic Land and Resource Planning Agreement. https://www2.gov.bc.ca/assets/gov/zzzz-to-be-moved/9efbd86da302a0712e6559bdb2c7f9dd/9efbd86da302a0712e6559bdb2c7f9dd/agreements/slrp_doig_prophet_moberly.pdf. Accessed: May 2025.

Environment Canada. 2015. Recovery Strategy for Little Brown Myotis (Myotis lucifugus), Northern Myotis (Myotis septentrionalis), and Tri-colored Bat (Perimyotis subflavus) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. ix + 110 pp. https://www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/rs_LittleBrownMyotisNorthernMyotisTricoloredBat_e_proposed.pdf. Accessed: May 2025.

Environment Canada. 2012. Recovery Strategy for the Woodland Caribou (Rangifer tarandus caribou), Boreal population, in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. xi + 138pp. https://www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/rs_caribou_boreal_caribou_0912_e1.pdf. Accessed: May 2025.

Environment Canada. 2014. Recovery Strategy for the Woodland Caribou, Southern Mountain population (Rangifer tarandus caribou) in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. viii + 103 pp. https://www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/rs_woodland%20caribou_bois_s_mtn_0614_e.pdf. Accessed: May 2025.

Forest Practices Board. 2011. *Cumulative Effects Assessment. A Case Study for the Kiskatinaw River Watershed Special Report*. Appendix to FPB/SR/39. March 2011.

Fraser Basin Council 2019. Climate Projections for the BC Northeast Region. June 2019.

Geoscience BC. 2010a. *Kiskatinaw River Watershed*. December 2010. Montney Water Project.

Geoscience BC. 2010b. *Peace River Valley Watersheds*. December 2010. Montney Water Project.

Government of BC. 2025a. British Columbia Drought Monitoring Summary. Valid for 2025-05-13. Issued: 2025-05-15. Ministry of Water, Land and Resource Stewardship. https://droughtportal.gov.bc.ca/. Accessed: May 2025.

Government of BC. 2025b. *West Moberly First Nations*. https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/west-moberly-first-nations1. Accessed: May 2025.

Government of BC. 2025c. *Find a Natural Resource Major Project*. https://www2.gov.bc.ca/gov/content/industry/natural-resource-use/natural-resource-major-projects/find-a-project. Accessed: August 2025.

Government of BC. 2025d. *Environmental Assessments*. https://projects.eao.gov.bc.ca/. Accessed: August 2025.

Government of BC. 2024. *Treaty 8 First Nations*. https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/treaty-8-first-nations. Accessed: May 2025.

Government of BC. 2020. Interim Assessment Protocol for Grizzly Bear in British Columbia – Standards for Assessing the Condition of Grizzly Bear Populations and Habitat under British Columbia's Cumulative Effects Framework. Version 1.2 (October 2020). Prepared by the Provincial Grizzly Bear Technical Working Group – Ministry of Environment and Climate Change Strategy and Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 45 pp. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/cumulative-effects/protocols/cef_grizzly_bear_protocol_oct2020_final.pdf. Accessed: May 2025.

Government of BC. 2018. Provincial Moose Technical Working Group (PMTWG). 2017. Cumulative Effects Assessment Protocol for Moose in British Columbia. Version 2.0 (May 2017). Prepared by the Provincial Moose Technical Working Group – Ministries of Environment and Climate Change and Forest, Lands and Natural Resource Operations and Rural Development – for the Value Foundation Steering Committee. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/cumulative-effects/cef_assessment_protocol_moose_draft_v10.pdf . Accessed: May 2025.

Government of BC. 1999. Dawson Creek Land and Resource Management Plan

Government of Canada. 2024. Migratory Bird Sanctuaries. https://www.canada.ca/en/environment-climate-change/services/migratory-bird-sanctuaries/locations.html#bc. Accessed: May 2025.

Government of Canada. 2025a. Historical Hydrometric Data Map Search. https://wateroffice.ec.gc.ca/map/index_e.html?type=historical. Accessed May 2025.

Government of Canada. 2025b. Species at Risk Public Registry. https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html. Accessed: May 2025.

Government of Canada. 2025c. Major Projects Inventory. https://natural-resources.canada.ca/science-data/data-analysis/major-projects-inventory. Accessed: August 2025.

Government of Canada. 2025d. *Canadian Impact Assessment Registry*. https://iaac-aeic.gc.ca/050/evaluations?culture=en-CA. Accessed: August 2025.

Government of Canada. 1966. *Treaty Texts: Treaty No. 8*. https://www.rcaanc-cirnac.gc.ca/eng/1100100028813/1581293624572. Accessed: May 2025.

Halfway River First Nation. 2025. *Halfway River First Nation*. https://hrfn.ca/. Accessed: May 2025.

Halfway River First Nation and the Government of BC. 2024. *Halfway River First Nation Settlement Agreement*. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/agreements/halfway_settlement_agreement.pdf. Accessed: May 2025.

Halfway River First Nation and the Government of BC. 2023. *Letter of Agreement between Halfway River First Nation and the Province of BC*. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/agreements/hrfn_-_letter_of_agreement_20230306.pdf. Accessed: May 2025.

HB Lanarc Consultant. 2009. City of Dawson Creek Water Strategy. Accessed May 2025.

Kelly Lake First Nation. 2025. *Our Community*. https://kellylakefirstnation.com/. Accessed August 2025.

Landsong Heritage Consulting Ltd. 2025. Desktop Summary for the Dawson Creek Water Supply System Project. July 29, 2025.

McLeod Lake Indian Band. 2021. *McLeod Lake Indian Band (MLIB) 2021 Land Use Plan*. https://pressbooks.bccampus.ca/landuseplanninginbc/wp-content/uploads/sites/1865/2023/12/MLIB-Land-Use-Plan-2021-final-community-approval-October-5th-2021.pdf. Accessed: May 2025.

McLeod Lake Indian Band and the Government of BC. 2024. Amended and Restated 2024 Government to Government Agreement. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/agreements/2024_04_09_enhanced_amended_restated_2024_g2g_agreement.pdf. Accessed May 2024.

Métis Nation of BC. 2023. *KÂ ISI NÂTAMA ÔTA ATI NÎKÂN. Our Way Forward*. Métis Nation of BC Strategic Plan 2023/24-2026/27. Métis Nation of BC

Northern Health. 2025. *Dawson Creek health services at a glance.* https://www.northernhealth.ca/our-communities/dawson-creek/health-services-at-a-glance. Accessed: August 2025.

Northern Development. 2021. *State of the North Report*. https://www.northerndevelopment.bc.ca/wp-content/uploads/2022/04/NDIT-SofNR_2021_Apr4_web.pdf. Accessed: May 2025

PRRD (Peace River Regional District). 2025. *Who We Are*. https://prrd.bc.ca/who-we-are/. Accessed: May 2025

PRRD. South Peace Fringe Area Official Community Plan Bylaw No. 2048, 2012. Effective Date – January 26, 2022.

Province of British Columbia (BC). 2024a. BC Species and Ecosystems Explorer. https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/explore-cdc-data/species-and-ecosystems-explorer. Accessed: May 2025.

Province of BC. 2024b. *Cumulative Effects Framework. Assessment by Region. Northeast*. Last updated on January 31, 2024. https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/cumulative-effects-framework/regional-assessments/northeast. Accessed: May 2025

Province of BC. 2024c. *Cumulative Effects Framework*. Last updated on December 10, 2024. https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/cumulative-effects-framework. Accessed: May 2025

Province of BC. 2024d. Riparian management area guidebook. https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/silviculture/silvicultural-systems/silviculture-guidebooks/riparian-management-area-guidebook. Accessed: August 2025.

Province of BC. 2025a. Caribou in British Columbia. https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-conservation/caribou. Accessed: May 2025

Province of BC. 2025b. Data Catalogue. Species and Ecosystems at Risk - Publicly Available Occurrences – CDC. https://catalogue.data.gov.bc.ca/dataset/species-and-ecosystems-at-risk-publicly-available-occurrences-cdc. Accessed: August 2025

Province of BC. 2023. *BC Cumulative Effects Framework - Human Disturbance - 2023*. https://catalogue.data.gov.bc.ca/dataset/bc-cumulative-effects-framework-human-disturbance-current Accessed: August 2025.

Province of BC. 2021a. BC Soil Information Finder Tool. https://www2.gov.bc.ca/gov/content/environment/air-land-water/land/soil/soil-information-finder. Accessed: May 2025

Province of BC. 2021b. Human Disturbance Data Explorer. Cumulative Effects Framework. https://experience.arcgis.com/experience/a974a9886d1241c8baaa2debac6d650e/page/Interactive-Map?views=Layers. Accessed: May 2025

Province of BC. 2017. Value Assessments & Protocols. Publication Date December 28, 2017. https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/cumulative-effects-framework/value-assessments-protocols. Accessed: May 2025

Provincial Agriculture Land Commission. 2013. Agricultural Capability Classification in BC. https://www.alc.gov.bc.ca/assets/alc/assets/library/agricultural-capability/agriculture_capability_classification_in_bc_2013.pdf Accessed July 2025

Pouce Coupe. 2025. Community Profile. https://poucecoupe.ca/visitors/community-profile/. Accessed: May 2025.

Saulteau First Nation. 2025. *Our Nation*. https://www.saulteau.com/our-nation/. Accessed: May 2025

Saulteau First Nations and the Government of BC. 2023. Letter of Agreement. https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/consulting-with-first-nations/agreements/saulteau_-_letter_of_agreement_20230306.pdf. Accessed: May 2025

School District 59. 2025. *Dawson Creek and Area Schools*. https://www.sd59.bc.ca/schools/dawson-creek. Accessed online May 2025.

School District 60 Peace River North. 2025. *Schools*. https://www.prn.bc.ca/schools/. Accessed: May 2025

SHIFT Collaborative. 2019. Northeast Climate Change Vulnerability Assessments. Final Report. Dawson Creek. Submitted by SHIFT Collaborative. November 2019.

Stantec. 2024. *Taylor to Gordondale Pipeline Project Environmental and Socio-Economic Assessment*. Revision 00. April 2024. Prepared for Pouce Coupe Pipe Line Ltd. Prepared by Stantec Consulting Ltd.

Stantec. 2021. *Environmental and Socio-Economic Assessment for the Proposed NEBC Connector Project*. November 2021. Prepared for NorthRiver Midstream NEBC Connector GP Inc. Prepared by Stantec Consulting Ltd.

Statistics Canada. 2023. 2021 *Census of Population Geographic Summary*. https://www12.statcan.gc.ca/census-recensement/index-eng.cfm. Accessed: May 2025

Lengyel, T., J. Deri-Takacs, A.C. Hinnell, and J.J Clague, 2023. *Kiskatinaw-Peace Aquifer Mapping and Hydrostratigraphic Characterization, Water Science Series*, WSS2023-04. Province of British Columbia, Victoria.

Water Survey of Canada. 2025. Northeast Natural Resource Region Low Streamflow Report. https://bcrfc.env.gov.bc.ca/Real-time_Data/Drought_regional_statistics/NortheastNaturalResourceRegion.html. Accessed: May 2025.

Western Water Associates Ltd. 2025. City of Dawson Creek Groundwater Supply Feasibility Assessment. July 17, 2025.

Yahey v. British Columbia, 2021 BCSC 1287. The Yahey decision. https://www.bccourts.ca/jdb-txt/sc/21/12/2021BCSC1287.htm. Accessed: August 2025.

Appendix A Project Map Sheets

120°39'30"W 120°39'W 120°38'30"W 120°38'W 120°37'30"W 120°37'W 120°36'30"W 120°36'W 120°35'30"W 120°35'W

56°8'30"N 56°8'N 56°7'30"N 56°7'N 56°6'30"N 56°6'N 56°5'30"N

TAYLOR

RUDYK COULEE

PEACE RIVER

PINE CREEK

Critical Habitat for Federal Species at Risk Bank Swallow

Species at Risk Davis' locoweed

Species at Risk Tawny Crescent

TRAPPER TR0733T009

Species at Risk Old World Swallowtail, pikei subspecies

Species at Risk Common Ringlet, benjamini subspecies

Species at Risk Davis' locoweed

Critical Habitat for Federal Species at Risk Bank Swallow

Species at Risk Black-throated Green Warbler

Species at Risk Davis' locoweed

Species at Risk Black-throated Green Warbler

N: 6222795.9
E: 646518.7

Critical Habitat for Federal Species at Risk Little Brown Myotis

Critical Habitat for Federal Species at Risk Northern Myotis

TRAPPER TR0732T016

GUIDE 750021

Old Growth Management Area

30 82-17-6 | 29 82-17-6 | 28 82-17-6

19 82-17-6 | 20 82-17-6 | 21 82-17-6

18 82-17-6 | 17 82-17-6 | 16 82-17-6

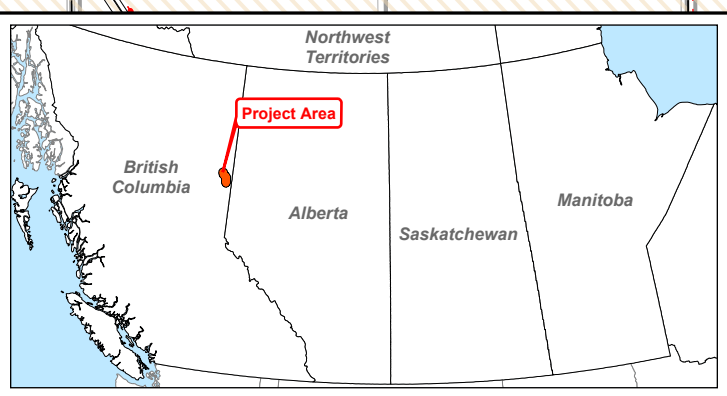
7 82-17-6 | 8 82-17-6 | 9 82-17-6

97

Legend

- Project Study Corridor
- Oil & Gas Well Location
- Oil & Gas Well Site / Facilities
- Pipeline Right of Way
- Transmission Lines
- Highway
- Road
- Recreation Trail Lines
- Railways
- Community Hall
- Golf & RV Resort
- Agricultural Land Reserve
- Old Growth Management Area
- MOF Opening
- Forest Tenure Cut Block
- Guide / Outfitter
- Trapper Boundary
- Range Tenure
- BC Parcel Fabric
- Species and Ecosystems at Risk (Animal)
- Species and Ecosystems at Risk (Plant)
- Critical Habitat for Federal Species at Risk
- Wetlands
- Hydrology
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

EAO Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 0.25 0.5 0.75 1 km

Scale: 1:20,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N	Page 1 of 8	Aug 13, 2025	Rev 2
Document Control: N/A	File Reference: Route Option A	Figure A1	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Mapbook\PB-0002-25_NPS36_Waterline_EAO_Map.aprx

120°38'W 120°37'30"W 120°37'W 120°36'30"W 120°36'W 120°35'30"W 120°35'W 120°34'30"W 120°34'W 120°33'30"W

56°5'N 56°4'30"N 56°4'N 56°3'30"N 56°3'N 56°2'30"N 56°2'N 56°1'30"N

N

5 82-17-6 | 4 82-17-6 | 3 82-17-6

32 81-17-6 | 33 81-17-6 | 34 81-17-6

29 81-17-6 | 28 81-17-6 | 27 81-17-6

20 81-17-6 | 21 81-17-6 | 22 81-17-6

Species at Risk
Upland Sandpiper

Critical Habitat for
Federal Species at Risk
Northern Myotis

Critical Habitat for
Federal Species at Risk
Little Brown Myotis

TRAPPER
TR0732T016

GUIDE
750021

TRAPPER
TR0732T015

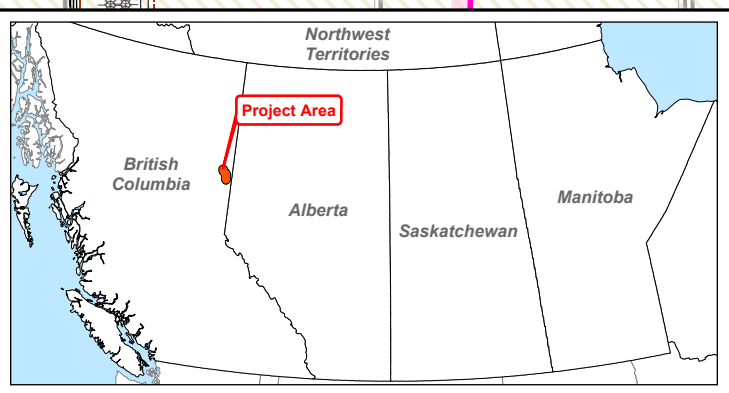
97

SE 1/4 OF SEC 7 TP 82 R 17 W6M EXC PLS A938 16190 & EXC PCL A (G9902)
SW 1/4 OF SEC 8 TP 82 R 17 W6M
SE 1/4 OF SEC 8 TP 82 R 17 W6M
SW 1/4 OF SEC 9 TP 82 R 17 W6M EXC THE W 4.883 M
SE 1/4 OF SEC 9 TP 82 R 17 W6M EXC THE MOST SLY 25 M
PCL A (P35144) OF SEC 10 TP 82 R 17 W6M
SE 1/4 OF SEC 10 TP 82 R 17 W6M
SEC 11 TP 82 R 17 W6M EXC THE W 14 FT
PCL A (F21858) OF THE NE 1/4 OF SEC 6 TP 82 R 17 W6M
NW 1/4 OF SEC 5 TP 82 R 17 W6M
NE 1/4 OF SEC 5 TP 82 R 17 W6M
NW 1/4 OF SEC 4 TP 82 R 17 W6M EXC THE MOST WLY 4.883 M IN PARL WIDTH
NE 1/4 OF SEC 4 TP 82 R 17 W6M
NW 1/4 OF SEC 3 TP 82 R 17 W6M EXC THE W 4.883 M
NE 1/4 OF SEC 3 TP 82 R 17 W6M
BK A OF W 1/2 SEC 2 TP 82 R 17 W6M
PCL A (G2662) OF THE SW 1/4 OF SEC 5 TP 82 R 17 W6M
L 1 SEC 6 TP 82 R 17 W6M PL BCP33304
SW 1/4 OF SEC 5 TP 82 R 17 W6M EXC PCL A (G2662) & PLS 19469 & A938
SE 1/4 OF SEC 5 TP 82 R 17 W6M EXC PL PGP45851
SW 1/4 OF SEC 4 TP 82 R 17 W6M
SE 1/4 OF SEC 4 TP 82 R 17 W6M
SW 1/4 OF SEC 3 TP 82 R 17 W6M
SE 1/4 OF SEC 3 TP 82 R 17 W6M EXC PL 28204
W1/2 SEC 2 TP 82 R 17 W6M EXC BK A BK B
L 2 SEC 6 TP 82 R 17 W6M PL BCP33304
L 1 SEC 5 TP 82 R 17 W6M PL 19469
L 1 SEC 5 TP 82 R 17 W6M PL PGP45851
L 1 SEC 3 TP 82 R 17 W6M PL 28204
L 1 SEC 34 TP 81 R 17 W6M PL 31892
NW 1/4 OF SEC 32 TP 81 R 17 W6M EXC PL A938
NW 1/4 OF SEC 33 TP 81 R 17 W6M
NE 1/4 OF SEC 33 TP 81 R 17 W6M
NW 1/4 OF SEC 34 TP 81 R 17 W6M EXC THE W 14 FT
NE 1/4 OF SEC 34 TP 81 R 17 W6M EXC PL 31892
NE 1/4 OF SEC 31 TP 81 R 17 W6M EXC PL A938
E 1/2 OF SEC 32 TP 81 R 17 W6M
W 1/2 OF SEC 35 TP 81 R 17 W6M
SE 1/4 OF SEC 31 TP 81 R 17 W6M
PT OF THE SW 1/4 OF SEC 32 TP 81 R 17 W6M SHOWN ON PL A938
SW 1/4 OF SEC 32 TP 81 R 17 W6M EXC PL A938
SW 1/4 OF SEC 33 TP 81 R 17 W6M
SE 1/4 OF SEC 33 TP 81 R 17 W6M
SW 1/4 OF SEC 34 TP 81 R 17 W6M
SE 1/4 OF SEC 34 TP 81 R 17 W6M
NE 1/4 OF SEC 30 TP 81 R 17 W6M
NW 1/4 OF SEC 29 TP 81 R 17 W6M EXC PL A938
NE 1/4 OF SEC 29 TP 81 R 17 W6M
NW 1/4 OF SEC 28 TP 81 R 17 W6M EXC THE WLY 14 FT IN PARL WIDTH
NE 1/4 OF SEC 28 TP 81 R 17 W6M
NE 1/4 OF SEC 27 TP 81 R 17 W6M
NW 1/4 OF SEC 26 TP 81 R 17 W6M EXC THE W 14 FT
PCL A (N23694) OF THE W 1/2 OF SEC 27 TP 81 R 17 W6M
SE 1/4 OF SEC 30 TP 81 R 17 W6M OF THE SIXTH MERIDAN
SW 1/4 OF SEC 29 TP 81 R 17 W6M EXC PL A938
SE 1/4 OF SEC 29 TP 81 R 17 W6M
SW 1/4 OF SEC 28 TP 81 R 17 W6M
SE 1/4 OF SEC 28 TP 81 R 17 W6M
SE 1/4 OF SEC 27 TP 81 R 17 W6M
SW 1/4 OF SEC 26 TP 81 R 17 W6M
NE 1/4 OF SEC 19 TP 81 R 17 W6M EXC PL A938
PT OF THE NE 1/4 OF SEC 19 TP 81 R 17 W6M SHOWN ON PL A938
NW 1/4 OF SEC 20 TP 81 R 17 W6M EXC PL A938
NE 1/4 OF SEC 20 TP 81 R 17 W6M
NE 1/4 OF SEC 21 TP 81 R 17 W6M
NE 1/4 OF SEC 22 TP 81 R 17 W6M
W 1/2 OF SEC 21 TP 81 R 17 W6M
W 1/2 OF SEC 22 TP 81 R 17 W6M
SE 1/4 OF SEC 19 TP 81 R 17 W6M
PCL A (70809M) OF THE SW 1/4 OF SEC 20 TP 81 R 17 W6M
SW 1/4 OF SEC 20 TP 81 R 17 W6M EXC PLS A938 & 10257
SE 1/4 OF SEC 20 TP 81 R 17 W6M
SE 1/4 OF SEC 21 TP 81 R 17 W6M
SE 1/4 OF SEC 22 TP 81 R 17 W6M
L A SEC 20 TP 81 R 17 W6M PL 10257
SEC 18 TP 81 R 17 W6M EXC PL 11702
NW 1/4 OF SEC 17 TP 81 R 17 W6M EXC PLS A938 & A2093
NE 1/4 OF SEC 17 TP 81 R 17 W6M
NW 1/4 OF SEC 16 TP 81 R 17 W6M
E 1/2 OF SEC 16 TP 81 R 17 W6M
W 1/2 OF SEC 15 TP 81 R 17 W6M
E 1/2 OF SEC 15 TP 81 R 17 W6M EXC BK A OF THE SE 1/4

Legend

- Project Study Corridor
- Oil & Gas Well Location
- Oil & Gas Well Site / Facilities
- Pipeline Right of Way
- Transmission Lines
- Highway
- Road
- Recreation Trail Lines
- Railways
- Community Hall
- Golf & RV Resort
- Agricultural Land Reserve
- Old Growth Management Area
- MOF Opening
- Forest Tenure Cut Block
- Guide / Outfitter
- Trapper Boundary
- Range Tenure
- BC Parcel Fabric
- Species and Ecosystems at Risk (Animal)
- Species and Ecosystems at Risk (Plant)
- Critical Habitat for Federal Species at Risk
- Wetlands
- Hydrology
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

EAO Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 0.25 0.5 0.75 1 km

Scale: 1:20,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N	Page 2 of 8	Aug 13, 2025	Rev 2
Document Control: N/A	File Reference: Route Option A	Figure A1	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Mapbook\PB-0002-25_NPS36_Waterline_EAO_Map.aprx

120°33'30"W 120°33'W 120°32'30"W 120°32'W 120°31'30"W 120°31'W 120°30'30"W 120°30'W 120°29'30"W 120°29'W

56°3'30"N 56°3'N 56°2'30"N 56°2'N 56°1'30"N 56°1'N 56°0'30"N 56°0'N

SE 1/4 OF SEC 34 TP 81 R 17 W6M
W 1/2 OF SEC 35 TP 81 R 17 W6M
SE 1/4 OF SEC 35 TP 81 R 17 W6M
W 1/2 OF SEC 36 TP 81 R 17 W6M
SE 1/4 OF SEC 36 TP 81 R 17 W6M
SEC 31 TP 81 R 16 W6M EXC THE MOST WLY 14 FT IN PARL WIDTH
SEC 32 TP 81 R 16 W6M

NW 1/4 OF SEC 26 TP 81 R 17 W6M EXC THE W 14 FT
NE 1/4 OF SEC 26 TP 81 R 17 W6M
NE 1/4 OF SEC 27 TP 81 R 17 W6M

26
81-17-6

GUIDE
750021

TRAPPER
TR0732T016

25
81-17-6

SEC 25 TP 81 R 17 W6M

SEC 30 TP 81 R 16 W6M EXC THE MOST SLY & THE MOST WLY 4.883 M IN PARL WIDTHS
30
81-16-6

SEC 29 TP 81 R 16 W6M

SW 1/4 OF SEC 26 TP 81 R 17 W6M
SE 1/4 OF SEC 26 TP 81 R 17 W6M EXC THE S 14 FT
SE 1/4 OF SEC 27 TP 81 R 17 W6M

EIGHT MILE CREEK

NW 1/4 OF SEC 23 TP 81 R 17 W6M
NE 1/4 OF SEC 23 TP 81 R 17 W6M

23
81-17-6

24
81-17-6

SEC 24 TP 81 R 17 W6M

SEC 19 TP 81 R 16 W6M EXC THE W 14 FT
19
81-16-6

SEC 20 TP 81 R 16 W6M

SE 1/4 OF SEC 22 TP 81 R 17 W6M
S 1/2 OF SEC 23 TP 81 R 17 W6M

TRAPPER
TR0733T008

L 1 SEC 18 TP 81 R 16 W6M PL BCP12717

N 1/2 OF SEC 14 TP 81 R 17 W6M

SEC 18 TP 81 R 16 W6M EXC PLS PGP40854 & BCP12717
18
81-16-6

SEC 17 TP 81 R 16 W6M EXC PL PGP40863

14
81-17-6

W 1/2 OF SEC 13 TP 81 R 17 W6M
13
81-17-6
E 1/2 OF SEC 13 TP 81 R 17 W6M

SW 1/4 OF SEC 14 TP 81 R 17 W6M
SE 1/4 OF SEC 14 TP 81 R 17 W6M

Tower Lake Community Hall

NE 1/4 OF SEC 10 TP 81 R 17 W6M
N 1/2 OF SEC 11 TP 81 R 17 W6M
NW 1/4 OF SEC 12 TP 81 R 17 W6M
NE 1/4 OF SEC 12 TP 81 R 17 W6M EXC PL PGP42299
N 1/2 OF SEC 7 TP 81 R 16 W6M EXC PL PGP41561
SEC 8 TP 81 R 16 W6M EXC THE MOST WLY 4.883 M IN PARL WIDTH

11
81-17-6

12
81-17-6

7
81-16-6

Species at Risk
Canada Warbler

SE 1/4 OF SEC 10 TP 81 R 17 W6M
SW 1/4 OF SEC 11 TP 81 R 17 W6M
SE 1/4 OF SEC 11 TP 81 R 17 W6M
S 1/2 OF SEC 12 TP 81 R 17 W6M EXC PL PGP42299
S 1/2 OF SEC 7 TP 81 R 16 W6M

TRAPPER
TR0732T015

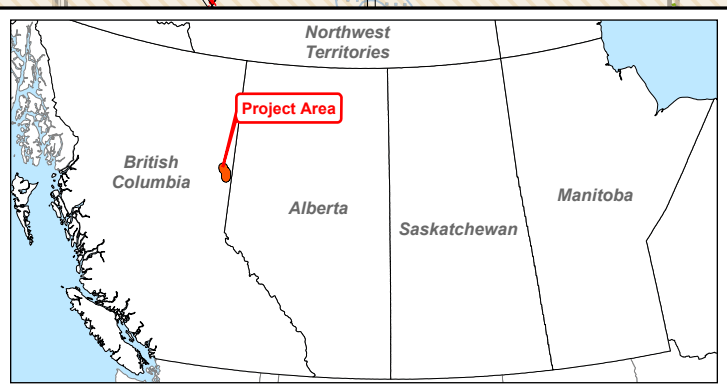
E 1/2 OF SEC 3 TP 81 R 17 W6M
NW 1/4 OF SEC 2 TP 81 R 17 W6M EXC THE W 4.883 M
NE 1/4 OF SEC 2 TP 81 R 17 W6M
NW 1/4 OF SEC 1 TP 81 R 17 W6M EXC THE W 14 FT
NE 1/4 OF SEC 1 TP 81 R 17 W6M
SEC 6 TP 81 R 16 W6M
SEC 5 TP 81 R 16 W6M

56°N

Legend

- Project Study Corridor
- Oil & Gas Well Location
- Oil & Gas Well Site / Facilities
- Pipeline Right of Way
- Transmission Lines
- Highway
- Road
- Recreation Trail Lines
- Railways
- Community Hall
- Golf & RV Resort
- Agricultural Land Reserve
- Old Growth Management Area
- MOF Opening
- Forest Tenure Cut Block
- Guide / Outfitter
- Trapper Boundary
- Range Tenure
- BC Parcel Fabric
- Species and Ecosystems at Risk (Animal)
- Species and Ecosystems at Risk (Plant)
- Critical Habitat for Federal Species at Risk
- Wetlands
- Hydrology
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

EAO Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 0.25 0.5 0.75 1 km

Scale: 1:20,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N	Page 3 of 8	Aug 13, 2025	Rev 2
Document Control: N/A	File Reference: Route Option A	Figure A1	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Mapbook\PB-0002-25_NPS36_Waterline_EAO_Map.aprx

120°28'30"W 120°28'W 120°27'30"W 120°27'W 120°26'30"W 120°26'W 120°25'30"W 120°25'W 120°24'30"W 120°24'W

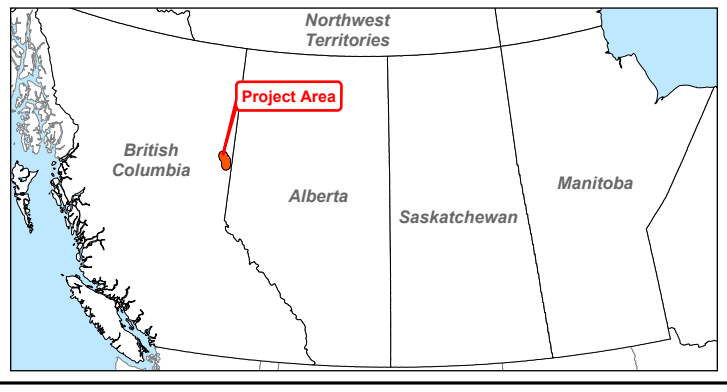
56°1'30"N 56°1'N 56°0'30"N 56°N 55°59'30"N 55°59'N 55°58'30"N

SEC 19 TP 81 R 16 W6M EXC THE W 14 FT
SEC 20 TP 81 R 16 W6M
SEC 21 TP 81 R 16 W6M EXC PL PGP40855
SEC 22 TP 81 R 16 W6M EXC PL PGP40935
SEC 23 TP 81 R 16 W6M EXC PL PGP40934
L 1 SEC 18 TP 81 R 16 W6M PL BCP12717
SEC 17 TP 81 R 16 W6M EXC PL PGP40863
17
81-16-6
16
81-16-6
SEC 16 TP 81 R 16 W6M EXC PL PGP40862
SEC 15 TP 81 R 16 W6M
15
81-16-6
SEC 14 TP 81 R 16 W6M
TRAPPER TR0733T008
N 1/2 OF SEC 7 TP 81 R 16 W6M EXC PL PGP41561
SEC 8 TP 81 R 16 W6M EXC THE MOST WLY 4.883 M IN PARL WIDTH
8
81-16-6
SEC 9 TP 81 R 16 W6M EXC THE MOST WLY 14 FT IN PARL WIDTH
9
81-16-6
TRAPPER TR0733T007
SEC 10 TP 81 R 16 W6M
10
81-16-6
PT OF SEC 11 TP 81 R 16 W6M LYING N OF THE KISKATINAW RIVER
S 1/2 OF SEC 7 TP 81 R 16 W6M
REM SEC 2 TP 81 R 16 W6M
SEC 4 TP 81 R 16 W6M EXC THE MOST WLY & THE MOST SLY 4.883 M IN PARL WIDTHS
SEC 3 TP 81 R 16 W6M EXC THE MOST WLY & THE MOST SLY 4.883 M IN PARL WIDTH
5
SEC 5 TP 81 R 16 W6M
81-16-6
4
81-16-6
3
81-16-6
SEC 6 TP 81 R 16 W6M
SW1/4 SEC 2 TP 81 R 16 W6M
Species at Risk
Canada Warbler
KISKATINAW RIVER
TRAPPER TR0732T015
NW1/4 SEC 33 TP 80 R 16 W6M
RANGE TENURE RAN076547
SEC 32 TP 80 R 16 W6M
32
80-16-6
33
80-16-6
BK A SEC 33 TP 80 R 16 W6M
W1/2 SEC 34 TP 80 R 16 W6M
34
80-16-6
REM SEC 34 TP 80 R 16 W6M
TRAPPER TR0733T005
Old Growth Management Area
E 1/2 OF SEC 31 TP 80 R 16 W6M
SW 1/4 OF SEC 33 TP 80 R 16 W6M
SW 1/4 OF SEC 35 TP 80 R 16 W6M
PT OF THE NE 1/4 OF SEC 30 TP 80 R 16 W6M SHOWN ON PL 20970
Old Growth Management Area
REM SEC 29 TP 80 R 16 W6M
Old Growth Management Area
SEC 28 TP 80 R 16 W6M
TRAPPER TR0733T004
COAL CREEK
SEC 27 TP 80 R 16 W6M
SEC 26 TP 80 R 16 W6M EXC THE WLY 14 FT

Legend

- Project Study Corridor
- Oil & Gas Well Location
- Oil & Gas Well Site / Facilities
- Pipeline Right of Way
- Transmission Lines
- Highway
- Road
- Recreation Trail Lines
- Railways
- Community Hall
- Golf & RV Resort
- Agricultural Land Reserve
- Old Growth Management Area
- MOF Opening
- Forest Tenure Cut Block
- Guide / Outfitter
- Trapper Boundary
- Range Tenure
- BC Parcel Fabric
- Species and Ecosystems at Risk (Animal)
- Species and Ecosystems at Risk (Plant)
- Critical Habitat for Federal Species at Risk
- Wetlands
- Hydrology
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

EAO Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 0.25 0.5 0.75 1 km

Scale: 1:20,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N	Page 4 of 8	Aug 13, 2025	Rev 2
Document Control: N/A	File Reference: Route Option A	Figure A1	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Mapbook\PB-0002-25_NPS36_Waterline_EAO_Map.aprx

120°25'30"W 120°25'W 120°24'30"W 120°24'W 120°23'30"W 120°23'W 120°22'30"W 120°22'W 120°21'30"W 120°21'W

55°59'30"N 55°59'N 55°58'30"N 55°58'N 55°57'30"N 55°57'N 55°56'30"N 55°56'N

KISKATINAW RIVER

3
81-16-6
SEC 3 TP 81 R 16 W6M EXC THE MOST WLY & THE MOST SLY 4.883 M IN PARL WIDTH
SEC 4 TP 81 R 16 W6M EXC THE MOST WLY & THE MOST SLY 4.883 M IN PARL WIDTHS

2
81-16-6
REM SEC 2 TP 81 R 16 W6M
SW1/4 SEC 2 TP 81 R 16 W6M
TRAPPER TR0733T007

1
81-16-6
SEC 1 TP 81 R 16 W6M EXC THE W & S 14 FT
NW 1/4 OF SEC 6 TP 81 R 15 W6M
PCL A (P28043) OF THE SW,1/4 OF SEC 6 TP 81 R 15 W6M

N

KISKATINAW RIVER

34
80-16-6
W1/2 SEC 34 TP 80 R 16 W6M
BK A SEC 33 TP 80 R 16 W6M
TRAPPER TR0732T015
REM SEC 34 TP 80 R 16 W6M

35
80-16-6
NW1/4 SEC 35 TP 80 R 16 W6M
E 1/2 OF SEC 35 TP 80 R 16 W6M
SW 1/4 OF SEC 35 TP 80 R 16 W6M

36
80-16-6
N 1/2 OF SEC 36 TP 80 R 16 W6M
SW 1/4 OF SEC 36 TP 80 R 16 W6M
SE 1/4 OF SEC 36 TP 80 R 16 W6M
TRAPPER TR0733T0

Old Growth Management Area

RANGE TENURE RAN076547

27
80-16-6
SEC 27 TP 80 R 16 W6M
SEC 28 TP 80 R 16 W6M

26
80-16-6
SEC 26 TP 80 R 16 W6M EXC THE WLY 14 FT

25
80-16-6
NW 1/4 OF SEC 25 TP 80 R 16 W6M
BK A OF SEC 25 TP 80 R 16 W6M

TRAPPER TR0733T004

TRAPPER TR0733T005

22
80-16-6
S1/2 SEC 22 TP 80 R 16 W6M
SW 1/4 OF SEC 21 TP 80 R 16 W6M
NE 1/4 OF SEC 21 TP 80 R 16 W6M
NW 1/4 OF SEC 22 TP 80 R 16 W6M
REM SEC 22 TP 80 R 16 W6M

23
80-16-6
N 1/2 OF SEC 23 TP 80 R 16 W6M EXC THE MOST WLY 14 FT IN PARL WIDTH
SW 1/4 OF SEC 23 TP 80 R 16 W6M EXC THE MOST WLY 14 FT IN PARL WIDTH
SE 1/4 OF SEC 23 TP 80 R 16 W6M

24
80-16-6
BK A OF SEC 24 TP 80 R 16 W6M
NE 1/4 OF SEC 24 TP 80 R 16 W6M
BK B SEC 24 TP 80 R 16 W6M

COAL CREEK

15
80-16-6
N 1/2 OF SEC 15 TP 80 R 16 W6M EXC THE W 14 FT
NE 1/4 OF SEC 16 TP 80 R 16 W6M
SE 1/4 OF SEC 16 TP 80 R 16 W6M EXC THE MOST SLY 14 FT IN PARL WIDTH & PL 33350
L A SECS 15 & 16 TP 80 R 16 W6M PL 33350

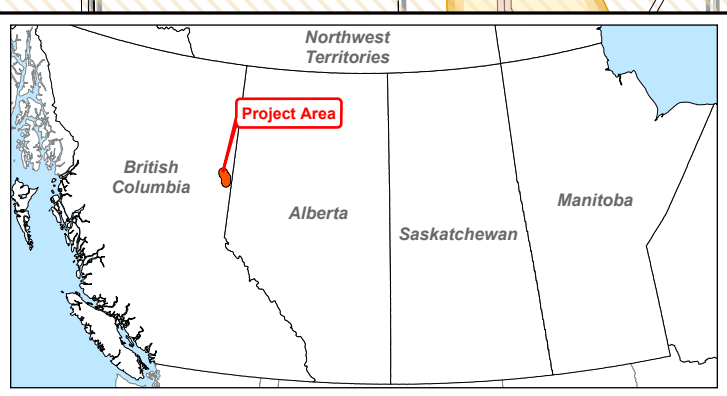
14
80-16-6
W 1/2 OF SEC 14 TP 80 R 16 W6M
NE 1/4 OF SEC 14 TP 80 R 16 W6M
SE 1/4 OF SEC 14 TP 80 R 16 W6M

13
80-16-6
BK A OF SEC 13 TP 80 R 16 W6M
SE 1/4 OF SEC 13 TP 80 R 16 W6M

Legend

- Project Study Corridor
- Oil & Gas Well Location
- Oil & Gas Well Site / Facilities
- Pipeline Right of Way
- Transmission Lines
- Highway
- Road
- Recreation Trail Lines
- Railways
- Community Hall
- Golf & RV Resort
- Agricultural Land Reserve
- Old Growth Management Area
- MOF Opening
- Forest Tenure Cut Block
- Guide / Outfitter
- Trapper Boundary
- Range Tenure
- BC Parcel Fabric
- Species and Ecosystems at Risk (Animal)
- Species and Ecosystems at Risk (Plant)
- Critical Habitat for Federal Species at Risk
- Wetlands
- Hydrology
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

EAO Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 0.25 0.5 0.75 1 km

Scale: 1:20,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N	Page 5 of 8	Aug 13, 2025	Rev 2
Document Control: N/A	File Reference: Route Option A	Figure A1	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Mapbook\PB-0002-25_NPS36_Waterline_EAO_Map.aprx

120°25'30"W 120°25'W 120°24'30"W 120°24'W 120°23'30"W 120°23'W 120°22'30"W 120°22'W 120°21'30"W 120°21'W

55°56'N 55°55'30"N 55°55'N 55°54'30"N 55°54'N 55°53'30"N 55°53'N 55°52'30"N

N

15 80-16-6 | 14 80-16-6 | 13 80-16-6

NE 1/4 OF SEC 16 TP 80 R 16 W6M
N 1/2 OF SEC 15 TP 80 R 16 W6M EXC THE W 14 FT
L A SECS 15 & 16 TP 80 R 16 W6M PL 33350
W 1/2 OF SEC 14 TP 80 R 16 W6M
SE 1/4 OF SEC 14 TP 80 R 16 W6M
BK A OF SEC 13 TP 80 R 16 W6M
SE 1/4 OF SEC 13 TP 80 R 16 W6M
SW 1/4 OF SEC 18 TP 80 R 15 W6M

NE 1/4 OF SEC 9 TP 80 R 16 W6M
NW 1/4 OF SEC 10 TP 80 R 16 W6M
NE 1/4 OF SEC 10 TP 80 R 16 W6M
NW 1/4 OF SEC 11 TP 80 R 16 W6M
NE 1/4 OF SEC 11 TP 80 R 16 W6M
NW 1/4 OF SEC 12 TP 80 R 16 W6M
NE 1/4 OF SEC 12 TP 80 R 16 W6M
NW 1/4 OF SEC 7 TP 80 R 15 W6M

10 80-16-6 | 11 80-16-6 | 12 80-16-6

SWEETWATER CREEK

SE 1/4 OF SEC 9 TP 80 R 16 W6M EXC PL PGP42340
L 2 SEC 10 TP 80 R 16 W OF THE 6TH MERIDIAN PL EPP22404
SW 1/4 OF SEC 11 TP 80 R 16 W6M
SE 1/4 OF SEC 11 TP 80 R 16 W6M
SW 1/4 OF SEC 12 TP 80 R 16 W6M EXC THE W 14 FT
SE 1/4 OF SEC 12 TP 80 R 16 W6M
SW 1/4 OF SEC 7 TP 80 R 15 W6M
L 1 SEC 10 TP 80 R 16 W OF THE 6TH MERIDIAN PL EPP22404

NW 1/4 OF SEC 2 TP 80 R 16 W6M EXC PL PGP43419
NE 1/4 OF SEC 2 TP 80 R 16 W6M EXC PL PGP43419
NW 1/4 OF SEC 3 TP 80 R 16 W6M EXC PL PGP42554
NE 1/4 OF SEC 3 TP 80 R 16 W6M EXC PL PGP42553
NE 1/4 OF SEC 4 TP 80 R 16 W6M EXC PL PGP42556
BK A OF SEC 1 TP 80 R 16 W6M
NE 1/4 OF SEC 1 TP 80 R 16 W6M
NW 1/4 OF SEC 6 TP 80 R 15 W6M

3 80-16-6 | 2 80-16-6 | 1 80-16-6

TRAPPER TR0733T006
TRAPPER TR0733T005

SE 1/4 OF SEC 4 TP 80 R 16 W6M
SW 1/4 OF SEC 3 TP 80 R 16 W6M
SE 1/4 OF SEC 3 TP 80 R 16 W6M
SW 1/4 OF SEC 2 TP 80 R 16 W6M
SE 1/4 OF SEC 2 TP 80 R 16 W6M EXC PL PGP43419
SE 1/4 OF SEC 1 TP 80 R 16 W6M EXC PL PGP41964

NE 1/4 OF SEC 33 TP 79 R 16 W6M
NW 1/4 OF SEC 34 TP 79 R 16 W6M EXC PL 30795
PCL A SEC 34 TP 79 R 16 W6M PL 30796
N 1/2 OF SEC 35 TP 79 R 16 W6M
L 3 SEC 36 TP 79 R 16 W6M PL BCP21690
L 2 SEC 36 TP 79 R 16 W6M BCP21690
L 1 SEC 36 TP 79 R 16 W6M BCP21690

34 79-16-6 | 35 79-16-6 | 36 79-16-6

SE 1/4 OF SEC 33 TP 79 R 16 W6M
SW 1/4 OF SEC 34 TP 79 R 16 W6M EXC PL 17258
SE 1/4 OF SEC 34 TP 79 R 16 W6M
SW 1/4 OF SEC 35 TP 79 R 16 W6M EXC THE W 14 FT
SE 1/4 OF SEC 35 TP 79 R 16 W6M
L 4 SEC 36 TP 79 R 16 W6M PL BCP21690
L 1 SEC 34 TP 79 R 16 W6M PL 17258

NE 1/4 OF SEC 28 TP 79 R 16 W6M EXC PL H903 & EXC PCL A (D605) & PL 22372 & PL H903
NW 1/4 OF SEC 27 TP 79 R 16 W6M
NE 1/4 OF SEC 27 TP 79 R 16 W6M
NW 1/4 OF SEC 26 TP 79 R 16 W6M EXC THE W 4.267 M
NE 1/4 OF SEC 26 TP 79 R 16 W6M
NW 1/4 OF SEC 25 TP 79 R 16 W6M
NE 1/4 OF SEC 25 TP 79 R 16 W6M

27 79-16-6 | 26 79-16-6 | 25 79-16-6

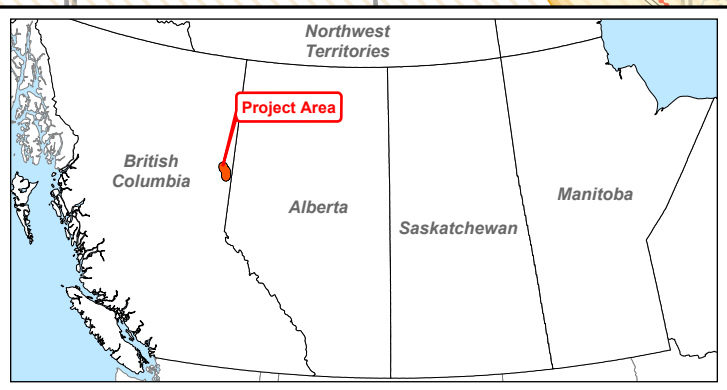
97

SW 1/4 OF SEC 27 TP 79 R 16 W6M EXC PL H903
SE 1/4 OF SEC 28 TP 79 R 16 W6M EXC PLS A938 & 22372
SE 1/4 OF SEC 27 TP 79 R 16 W6M EXC PLS H903 15272 17236 & 17859
SW 1/4 OF SEC 26 TP 79 R 16 W6M
SE 1/4 OF SEC 26 TP 79 R 16 W6M
SW 1/4 OF SEC 25 TP 79 R 16 W6M
SE 1/4 OF SEC 25 TP 79 R 16 W6M
L 1 SEC 27 TP 79 R 16 W6M PL 17236
L 1 SEC 27 TP 79 R 16 W6M PL 17859

Legend

- Project Study Corridor
- Oil & Gas Well Location
- Oil & Gas Well Site / Facilities
- Pipeline Right of Way
- Transmission Lines
- Highway
- Road
- Recreation Trail Lines
- Railways
- Community Hall
- Golf & RV Resort
- Agricultural Land Reserve
- Old Growth Management Area
- MOF Opening
- Forest Tenure Cut Block
- Guide / Outfitter
- Trapper Boundary
- Range Tenure
- BC Parcel Fabric
- Species and Ecosystems at Risk (Animal)
- Species and Ecosystems at Risk (Plant)
- Critical Habitat for Federal Species at Risk
- Wetlands
- Hydrology
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

EAO Map Showing

Proposed Dawson Creek Water Supply System Project

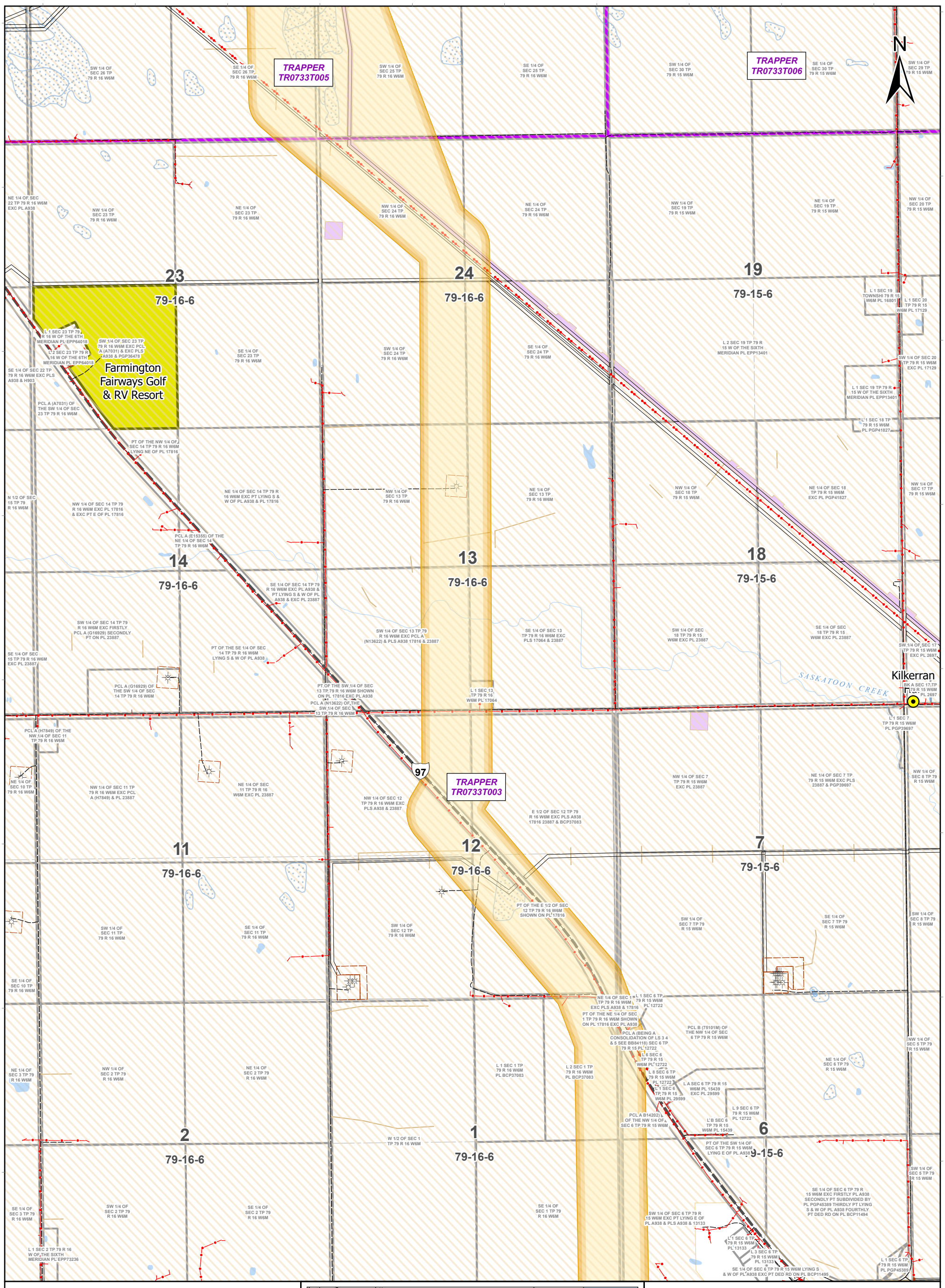
Peace River District

0 0.25 0.5 0.75 1 km

Scale: 1:20,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N	Page 6 of 8	Aug 13, 2025	Rev 2
Document Control: N/A	File Reference: Route Option A	Figure A1	MIDWEST

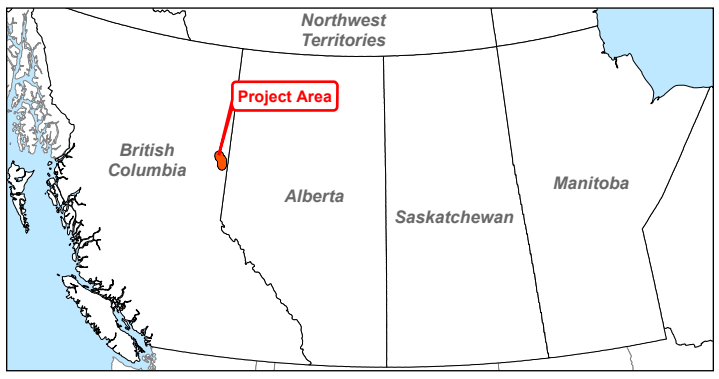
M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Mapbook\PB-0002-25_NPS36_Waterline_EAO_Map.aprx



Legend

- Project Study Corridor
- Oil & Gas Well Location
- Oil & Gas Well Site / Facilities
- Pipeline Right of Way
- Transmission Lines
- Highway
- Road
- Recreation Trail Lines
- Railways
- Community Hall
- Golf & RV Resort
- Agricultural Land Reserve
- Old Growth Management Area
- MOF Opening
- Forest Tenure Cut Block
- Guide / Outfitter
- Trapper Boundary
- Range Tenure
- BC Parcel Fabric
- Species and Ecosystems at Risk (Animal)
- Species and Ecosystems at Risk (Plant)
- Critical Habitat for Federal Species at Risk
- Wetlands
- Hydrology
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

EAO Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 0.25 0.5 0.75 1 km

Scale: 1:20,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N	Page 7 of 8	Aug 13, 2025	Rev 2
Document Control: N/A	File Reference: Route Option A	Figure A1	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Mapbook\PB-0002-25_NPS36_Waterline_EAO_Map.aprx

120°23'W 120°22'30"W 120°22'W 120°21'30"W 120°21'W 120°20'30"W 120°20'W 120°19'30"W 120°19'W 120°18'30"W

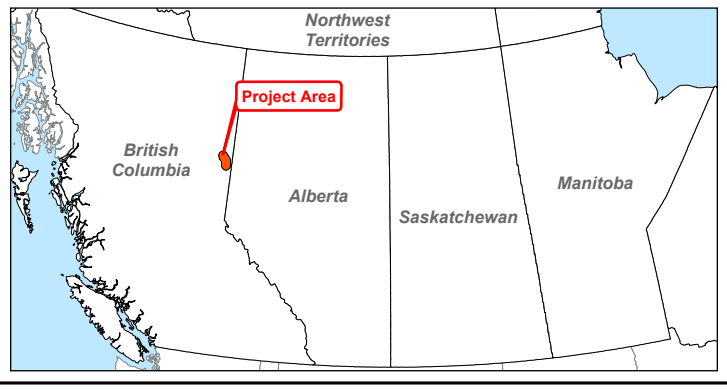
55°48'30"N 55°48'N 55°47'30"N 55°47'N 55°46'30"N 55°46'N 55°45'30"N

SE 1/4 OF SEC 2 TP 79 R 16 W6M
W 1/2 OF SEC 1 TP 79 R 16 W6M
SE 1/4 OF SEC 1 TP 79 R 16 W6M
PT OF THE SW 1/4 OF SEC 6 TP 79 R 15 W6M LYING E OF PL A938
SW 1/4 OF SEC 6 TP 79 R 15 W6M EXC PT LYING E OF PL A938 & PLS A938 & 13133
L 1 SEC 6 TP 79 R 15 W6M PL 13133
L 2 SEC 6 TP 79 R 15 W6M PL 13133
SE 1/4 OF SEC 6 TP 79 R 15 W6M EXC FIRSTLY PL A938 SECONDLY PT SUBDIVIDED BY PL PGP45389 THIRDLY PT LYING S & W OF PL A938 FOURTHLY PT DED RD ON PL BCP11494
SW 1/4 OF SEC 5 TP 79 R 15 W6M
SE 1/4 OF SEC 6 TP,79 R 15 W6M LYING S & W OF PL A938 EXC PT DED RD ON PL BCP11495
L 1 SEC 6 TP 79 R 15 W6M PL PGP45389
PT OF THE NORTH W,1/4 OF,SEC 36,TP,78 R 16 W6M EACE RVR DISTRICT SHWN ON PL 20739
PT OF,L 6 SEC 36 TP 78 R 16 W6M PL 10330 SHOWN ON PL 20739
PT OF THE NE 1/4 OF SEC 36 TP 78 R 16 W6M LYING NE OF PL A938 EXC PT DED RD ON PL BCP11533
L 1 SEC 31,TP,78 R 15 W OF,THE SIXTH MERIDIAN PL EPP13107
L 10 SEC 36 TP 78 R 16 W6M PL 10330
L 6 SEC 36 TP,78 R 16 W6M PL 10330 EXC PL 20739
L 11 SEC 31 TP 78 R 15 W6M PL 13534
L 16 SEC 31 TP 78 R 15 W6M PL 13534
L 1 SEC 36 TP 78 R 16 W6M PL BCP37955
L 4 SEC 36 TP,78 R 16 W6M PL 10330
L 4 SEC 31 TP 78 R 15 W6M PL 13534
L 7 SEC 36 TP 78 R 16 W6M PL 10330
L 22 SEC 31 TP,78 R 15 W6M PL 13534
L 2 SEC 36 TP 78 R 16 W6M PL 10330
L 2 SEC 31 TP,78 R 15 W OF,THE SIXTH MERIDIAN PL EPP13107
L 1 SEC 36 TP 78 R 16 W6M PL 10330
PT OF THE NW 1/4 OF SEC 31 TP 78 R 15 W6M LYING N OF PL A938 & E OF PL 13534
L A SEC 31 TP 78 R 15 W OF THE 6TH MERIDIAN PL EPP64757
NE 1/4 OF SEC 31 TP 78 R 15 W6M
NE 1/4 OF SEC 34 TP 78 R 16 W6M
L 1 SEC 35 TP 78 R 16 W6M PL PGP39509
L 2 SEC 35 TP 78 R 16 W6M PL PGP39509
NW 1/4 OF SEC 36 TP 78 R 16 W6M EXC PL 20739
L C SEC 31 TP 78 R 15 W OF THE 6TH MERIDIAN PL EPP64757
L 2 SEC 36 TP 78 R 16 W6M PL BCP37955
L B SEC 31 TP,78 R 15 W OF THE 6TH MERIDIAN PL EPP64757
L 2 SEC 31 TP 78 R 15 W6M PL 24630
35 78-16-6
36 78-16-6
31 78-15-6
SE 1/4 OF SEC 34 TP 78 R 16 W6M
SW 1/4 OF SEC 35 TP 78 R 16 W6M
SE 1/4 SEC 35 TP 78 R 16 W6M
SW 1/4 SEC 36 TP 78 R 16 W6M
SE 1/4 OF SEC 36 TP 78 R 16 W6M
SW 1/4 OF SEC 31 TP 78 R 15 W6M EXC PL A938
PCL A (D15707) OF THE SE 1/4 OF SEC 31 TP 78 R 15 W6M
PT OF THE SE 1/4 OF SEC 31 TP 78 R 15 W6M LYING SW OF PL A938
DAWSON CREEK
L A SEC 30 TP 78 R 15 W6M PL 32360
PCL A (N14567) OF THE NE 1/4 OF SEC 30 TP 78 R 15 W6M EXC PL 32360
L 1 SEC 27 TP 78 R 16 W OF THE 6TH MERIDIAN PL EPP62122
NW 1/4 OF SEC 26 TP 78 R 16 W6M
NE 1/4 OF SEC 26 TP 78 R 16 W6M
NW 1/4 SEC 25 TP 78 R 16 W6M
NE 1/4 OF SEC 25 TP 78 R 16 W6M
NW 1/4 OF SEC 30 TP 78 R 15 W6M
NE 1/4 OF SEC 30 TP 78 R 15 W6M EXC PCL A (N14567) & PL A938
L 2 SEC 27 TP 78 R 16 W OF THE 6TH MERIDIAN PL EPP62122
Species at Risk Upland Sandpiper
26 78-16-6
25 78-16-6
30 78-15-6
PT OF THE SE 1/4 OF SEC 27,TP,78 R 16 W6M SHOWN ON PL 32059
PT OF THE S,1/2 OF SEC 27-TP,78 R 16 W6M SHOWN ON PL A2036
PT OF,THE SW,1/4 OF SEC 26 TP 78 R 16 W6M SHOWN ON PL A2036
PT OF,THE SE 1/4 OF SEC 26 TP 78 R 16 W6M SHOWN ON PL A2036
PT OF,THE SW,1/4 OF SEC 25 TP,78 R 16 W6M SHOWN ON PL A2036
PT OF THE SE 1/4 OF SEC 25 TP,78 R 16 W6M SHOWN ON PL A2036
PT OF,THE SW 1/4 OF SEC 30 TP,78 R 15 W6M SHOWN ON PL A2036
SE 1/4 OF SEC 30 TP 78 R 15 W6M EXC PL A2036
Species at Risk Upland Sandpiper
PT OF,THE SE 1/4 OF SEC 30,TP,78 R 15 W6M SHOWN ON PL A2036
SE 1/4 OF SEC 27 TP 78 R 16 W6M EXC PLS A2036 & 32059
SW 1/4 OF SEC 26 TP 78 R 16 W6M EXC PL A2036
SE 1/4 OF SEC 26 TP 78 R 16 W6M EXC PL A2036 & EXC PCL A (R1370)
SW 1/4 OF SEC 25 TP 78 R 16 W6M EXC PL A2036
SE 1/4 OF SEC 25 TP 78 R 16 W6M EXC PL A2036
SW 1/4 OF SEC 30 TP 78 R 15 W6M EXC PL A2036
TRAPPER TR0733T003
PCL A (R1370) OF THE SE 1/4 OF SEC 26 TP 78 R 16 W6M
PT OF,THE NW 1/4 OF SEC 24 TP 78 R 16 W6M IN PL B7829
L A SEC 24 TP 78 R 16 W6M PL EPP58937
L A SEC 19 TP 78 R 15 W6M PL BCP38472
L B SEC 19 TP 78 R 15 W6M PL BCP38472
L 5 SEC 19 TP 78 R 15 W6M PL 18910
L 6 SEC 19 TP 78 R 15 W6M PL 18910
L A SEC 19 TP 78 R 15 W6M PL 29868
L 1 SEC 19 TP,78 R 15 W6M PL 18910
L A SEC 23 TP 78 R 16 W6M PL EPP50417
L B SEC 23 TP 78 R 16 W6M PL EPP50417
L 3 SEC 23 TP 78 R 16 W6M PL 17623
L 4 SEC 23 TP 78 R 16 W6M PL 17623
L 1 SEC 23 TP 78 R 16 W6M PL 13985
L 2 SEC 23 TP 78 R 16 W6M PL 13985
L 3 SEC 23 TP 78 R 16 W6M PL 13985
L 4 SEC 23 TP 78 R 16 W6M PL 13985
NE 1/4 OF SEC 22 TP 78 R 16 W6M
NW 1/4 OF SEC 23 TP 78 R 16 W6M
NE 1/4 OF SEC 23 TP 78 R 16 W6M EXC PLS 13985 & 17623
N 1/2 OF SEC 24 TP 78 R 16 W6M EXC PLS B7829 & 28507
L 1 SEC 24 TP 78 R 16 W6M PL 28507
NW 1/4 OF SEC 19 TP 78 R 15 W6M EXC PLS 18910 & 29868
NE 1/4 SEC 19 TP 78 R 15 W6M
23 78-16-6
24 78-16-6
19 78-15-6
PCL A (F23323) OF THE SE 1/4 OF SEC 23 TP 78 R 16 W6M
L 8 SEC 24 TP 78 R 16 W6M PL 18485
L 7 SEC 24 TP 78 R 16 W6M PL 18485
L 6 SEC 24 TP 78 R 16 W6M PL 18485
L 5 SEC 24 TP 78 R 16 W6M PL 18485
L 4 SEC 24 TP 78 R 16 W6M PL 18485
L 3 SEC 24 TP 78 R 16 W6M PL 18485
N 1/2 OF THE SW 1/4 OF SEC 23 TP 78 R 16 W6M
SE 1/4 OF SEC 22 TP 78 R 16 W6M
SE 1/4 OF SEC 23 TP 78 R 16 W6M EXC PCL A (F23323)
SW 1/4 OF SEC 24 TP 78 R 16 W6M EXC PL H572
SE 1/4 OF SEC 24 TP 78 R 16 W6M EXC PLS 11441 18337 & 18485 H572
SW 1/4 OF SEC 19 TP 78 R 15 W6M EXC PL H572
SE 1/4 OF SEC 19 TP 78 R 15 W6M EXC PL H572
S 1/2 OF THE SW 1/4 OF SEC 23 TP 78 R 16 W6M
L A SEC 24 TP 78 R 16 W6M PL 30124
L 2 SEC 24 TP 78 R 16 W OF THE 6TH MERIDIAN PL EPP30029
L 1 SEC 24 TP 78 R 16 W OF THE 6TH MERIDIAN PL EPP30029
97
L 2 SEC 13 TP,78 R 16 W OF THE 6TH MERIDIAN PL EPP29769
PCL A(F461) OF THE NE 1/4 OF SEC 15 TP 78 R 16 W6M
L 1 SEC 13 TP 78 R 16 W OF THE 6TH MERIDIAN PL EPP29769
L 3 SEC 13 TP 78 R 16 W OF THE 6TH MERIDIAN PL EPP29769
NW 1/4 OF SEC 13 TP 78 R 16 W6M EXC PCL A (N42821) & PL H572
NE 1/4 OF SEC 13 TP 78 R 16 W6M EXC PL H572
NW 1/4 OF SEC 18 TP 78 R 15 W6M EXC PL H572
NE 1/4 OF SEC 18 TP 78 R 15 W6M EXC PL H572
NE 1/4 OF SEC 15 TP 78 R 16 W6M EXC PCL A (F461) & PL H572
NW 1/4 OF SEC 14 TP 78 R 16 W6M EXC PL H572
NE 1/4 OF SEC 14 TP 78 R 16 W6M EXC PL H572
14 78-16-6
13 78-16-6
18 78-15-6
GUIDE 750021
N: 6182410.4
E: 666589.4
L 5 EXC PT ON PL BCP26670 SEC 18 TP 78 R 15 W6M PL 12297
SE 1/4 OF SEC 15 TP 78 R 16 W6M
SW 1/4 OF SEC 14 TP 78 R 16 W6M
SE 1/4 OF SEC 14 TP 78 R 16 W6M EXC PCL A (27022M) & PL PGP45036
SW 1/4 OF SEC 13 TP 78 R 16 W6M EXC PCL A (G23079)
SE 1/4 OF SEC 13 TP 78 R 16 W6M
L 1 SEC 18 TP 78 R 15 W6M PL 28386
PCL A (PL 23983) OF THE SW 1/4 OF SEC 18 TP 78 R 15 W6M EXC PL 28386
SE 1/4 SEC 18 TP 78 R 15 W6M EXC PL 12297
L 4 SEC 18 TP 78 R 15 W6M PL 12297
L 2 SEC 18 TP 78 R 15 W6M PL 12297
L 3 SEC 18 TP 78 R 15 W6M PL 12297
SOUTH DAWSON CREEK
L 1 SEC 14 TP 78 R 16 W6M PL PGP45036
PCL A (G23079) OF, THE SW,1/4 OF SEC 13 TP 78 R 16 W6M
NE 1/4 OF SEC 10 TP 78 R 16 W6M
LS 13 OF SEC 11 TP 78 R 16 W6M
LS 14 SEC 11 TP 78 R 16 W6M
NE 1/4 OF SEC 11 TP 78 R 16 W6M EXC PLS 15251 & PGP35537
TRAPPER TR0720T016
W 1/2 OF SEC 12 TP 78 R 16 W6M
NE 1/4 OF SEC 12 TP 78 R 16 W6M EXC PL B7636
PCL A (PL B7636) OF,THE NE 1/4 OF SEC,12 TP 78 R 16 W6M
NW 1/4 OF SEC 7 TP 78 R 15 W6M
NE 1/4 OF SEC 7 TP 78 R 15 W6M

Legend

- Project Study Corridor
- Oil & Gas Well Location
- Oil & Gas Well Site / Facilities
- Pipeline Right of Way
- Transmission Lines
- Highway
- Road
- Recreation Trail Lines
- Railways
- Community Hall
- Golf & RV Resort
- Agricultural Land Reserve
- Old Growth Management Area
- MOF Opening
- Forest Tenure Cut Block
- Guide / Outfitter
- Trapper Boundary
- Range Tenure
- BC Parcel Fabric
- Species and Ecosystems at Risk (Animal)
- Species and Ecosystems at Risk (Plant)
- Critical Habitat for Federal Species at Risk
- Wetlands
- Hydrology
- City / Town
- Parks / Protected Areas

The project is fully within Treaty 8 Territory



DC ENVIRONMENTAL LTD.

EAO Map Showing

Proposed Dawson Creek Water Supply System Project

Peace River District

0 0.25 0.5 0.75 1 km

Scale: 1:20,000 (at original document size of 11x17)

NAD 1983 CSRS UTM Zone 10N	Page 8 of 8	Aug 13, 2025	Rev 2
Document Control: N/A	File Reference: Route Option A	Figure A1	MIDWEST

M:\projects\2025\PB-0002-25\MAPPING\EAO_MAPPING\APRX\EAO_Mapbook\PB-0002-25_NPS36_Waterline_EAO_Map.aprx

Appendix B Groundwater Supply Feasibility

July 17, 2025 WWAL Project 25-065-01PG

Thurber Engineering Ltd.
350 - 7330 Fisher Street SE
Calgary, AB T2H 2H8
Attention: Robert Saunders, M.Eng., P.Eng.

Re: City of Dawson Creek Groundwater Supply Feasibility Assessment

Dear Mr. Saunders,

As requested, Western Water Associates Ltd. (Western Water) provides this feasibility assessment of developing a municipal groundwater supply for the City of Dawson Creek.

1. BACKGROUND

The City of Dawson Creek is currently exploring the feasibility of transitioning its municipal water supply from a surface water source to groundwater. The City presently relies on a surface water source within the Kiskatinaw River Watershed to supply drinking water to approximately 15,000 people in Dawson Creek, the Village of Pouce Coupe, and surrounding rural areas. Water is drawn from an intake facility near the community of Arras, where it is pumped into a series of reservoirs for municipal use. With growing concerns around long-term water security and reliance on a single surface water source, the City is considering groundwater as an alternative or supplementary source. The estimated groundwater demand is approximately 0.463 m^3/s (463 L/s), a volume that would trigger a regulatory review under the Environmental Assessment Act. The volume requested significantly exceeds the City's current water needs, with the additional yield intended for industrial use under the City's administration. Given the scale of the requested volume, the only likely viable groundwater sources would be those in direct hydraulic connection with the Peace River. At the City's request, Western Water has focused the desktop feasibility study on an area approximately 50 km north of the City, along the south shore of the Peace River.

A phased approach is typically used for groundwater supply investigations. The initial phase includes a desktop study of the groundwater supply probability. Should the results of the initial phase look promising for developing a groundwater supply, the next phase(s) of work may include identifying potential drilling locations and carrying out exploratory well drilling, test pumping, water quality sampling, well/aquifer evaluation to meet applicable regulatory requirements, and applying for a water licence.

This letter provides the results of a desktop groundwater supply feasibility study. The results of this study are considered preliminary, to be confirmed upon completion of well drilling and water quantity/quality testing.

2. SETTING

2.1 Physiography, Climate, and Surrounding Land Use

Figure 1 shows the general location of the study area and Figure 2 provides a plan of the study area. Both figures are attached. The City of Dawson Creek has specified a general study area of 492 hectares for this project that is just south of Taylor, BC and across the Peace River, almost all of which is agricultural land (Figure 2). The land surrounding the study area is a mix of private and crown land, subdivisions and farms.

Figure 3 (attached) shows surface water bodies in proximity to the study area. The Peace River is the largest surface water body near the study area. The Peace River flows from west to east, originating from the Williston Reservoir and discharging into the Slave River. The study area slopes toward the Peace River ranging in elevation from 491 to 405 m above sea level at the bank of the river. Pingel Creek flows from the southwest and drains into the Peace River in the west of the study area. On the east side of the study area, there is an unnamed creek that also drains into the river.

Climate normals for precipitation were obtained from the Taylor Flats climate station which was compiled by Environment Canada from data recorded in the area between 1981 and 2010. Based on the climate station normals, average annual precipitation for the area is 456.8 mm with the months of June and July being the wettest on average (Government of Canada, 2025). There were no historical temperature data available for the Taylor Flats station so normals data from the Fort Saint John Airport station during the same years were used. The average annual temperature and precipitation for the Fort Saint John Airport station is 2.3°C and 444.7 mm, respectively, with the hottest months being July and August (Government of Canada, 2025). June and July are also the wettest months at this station.

The Northeast Region has experienced notable climate change over the 20th century, with average temperatures increasing by more than 2°C since 1901 (PCIC, 2014). Winter warming has been particularly pronounced, with trends exceeding 0.6°C per decade between 1951 and 2009 (PCIC, 2014). Annual precipitation has also increased, with future projections indicating a 6% rise by the 2050s (PCIC, 2014). Winter precipitation is projected to increase by approximately 11%, although overall snowfall is expected to decrease, especially in spring (PCIC, 2014). Concurrently, the region is expected to see more frost-free days, increased growing degree days, and a longer agricultural growing season (PCIC, 2014).

These changes may benefit some forms of agriculture but are also expected to contribute to seasonal water imbalances, more frequent high-intensity rainfall events, and an increased risk of runoff and erosion. Reduced snowpack, shifting hydrology, and pressure on stormwater and flood control infrastructure are also anticipated.

2.2 Geology

Surficial geology in the study area south of Taylor, BC is characterized primarily by glacial deposits, including silts and clays derived from the glacial lake that once occupied the valley. Fluvial deposits associated with the Peace River are typically found adjacent the river and in historical meanders. The underlying bedrock is mapped as part of the Fort St. John Group of the Blairmore Tectonic Assemblage, within the Western Canada Sedimentary Basin (ENV, 2025a). This group consists of undivided fine clastic sedimentary rocks including shale, sideritic shale, silty

mudstone, siltstone, and sandstone, with minor occurrences of coal and conglomerate. The bedrock is of Cretaceous age, ranging from approximately 146 to 65 million years old, and was deposited in a foreland basin setting during the Mesozoic era (ENV, 2025a).

2.3 Hydrogeology

According to the Ministry of Environment and Parks (ENV) Water Resources Atlas (WRA), five mapped aquifers are in the vicinity of the study area. In order to supply the required demand, a highly transmissive aquifer with sufficient thickness in hydraulic connection to a surface water body would be necessary. Three aquifers potentially meet that criteria (Aquifers 687, 443, 442); however, only one is located south of the Peace River within the study area. Details on these aquifers are provided below. Figure 4 shows the extent of aquifers mapped in the area.

2.3.1 Aquifer 687

Aquifer 687 is a small, unconsolidated aquifer located in the Taylor Flats area, south of the Peace River and southeast of Fort St. John in the Peace River Land District (ENV, 2025b). It overlaps the northwest portion of the study area. The aquifer covers approximately 1.0 km² and has been delineated by the Province based on well development, topography, and surficial geology. It is comprised of alluvial fan deposits that are described as well-sorted and is confined or partially confined by clay, silty and sandy clay, and clay with sand layers. The thickness of the confining material ranges from 0 to 12 m, with an average of 5.5 m. The aquifer is classified as moderately vulnerable to contamination due to its partial confinement and shallow depth. Reported well yields range from 0.32 to 12.6 L/s, with a geometric mean of 1.2 L/s. These yields are based on short-term bail or air tests carried out during drilling and may underestimate the aquifer's actual productivity due to the lack of well screen installation and formal test pumping. Depth to groundwater in the aquifer ranges from 4.5 to 37.2 m, with an average of 15.8 m. Recharge is interpreted to occur primarily through direct infiltration of precipitation, although some wells located near the Peace River may be hydraulically connected to it.

No documented conflicts among water users have been identified for Aquifer 687, and groundwater is the sole water source for domestic use in the area. However, isolated water quality concerns have been reported for wells in the aquifer. Field testing carried out in 1981 by the Province on an unspecified number of groundwater sources in the aquifer indicated very hard water (up to 1800 mg/L as $CaCO_3$), along with occasional reports of hydrogen sulphide odour, elevated iron, and potential bacteriological contamination (ENV, 2025b).

2.3.2 Aquifer 634

Although not mapped as underlying the study area, bedrock Aquifer 634 is located approximately 2.8 km to the south and likely extends northward beneath Aquifer 687. Aquifer 634 is characterized as a fractured sedimentary bedrock aquifer with moderate productivity, low demand, and low vulnerability to surface contamination (ENV, 2025c). While the bedrock aquifer is likely present beneath the study area, it is not expected to provide the water yields required for the proposed use.

2.3.3 Aquifer 443

Aquifer 443 is mapped on the north shore of the Peace River, underlying the Town of Taylor, B.C. It covers an area of approximately 11.9 km² and is characterized as an unconfined sand and gravel aquifer formed from glacial outwash deposits. The aquifer is rated as having moderate productivity, demand, and vulnerability to surface

contamination (ENV, 2025d). Its delineation appears to be based on limited well records, as most of the community is serviced by a municipal water supply sourced from wells located along the shore of the Peace River.

2.3.4 Aquifer 442

Aquifer 442 is located approximately 4 km west of Taylor, on the north shore of the Taylor River. It is associated with alluvial fan and floodplain deposits and is partially confined by thin silt and silty sand horizons. The aquifer is characterized by high productivity, low demand, and high vulnerability to surficial contamination (ENV, 2025e). However, given its location on the north side of the river and its distance from the study area, it is not considered a practical source of water supply for Dawson Creek.

2.3.5 Aquifer 1271

Aquifer 1271 is a bedrock aquifer associated with the Dunvegan Formation and is mapped as underlying Fort St. John, extending northward to approximately 14 km northwest of the study area. It is characterized by moderate vulnerability, productivity, and demand (ENV, 2025f). However, bedrock aquifers in the region are generally known to have limited productivity, and as such, Aquifer 1271 is not considered a viable target for the proposed project.

3. EXISTING WELL AND WATER RIGHTS SURVEY

To further assess the groundwater supply potential, we reviewed information from the Province's GWELLS application for registered wells mapped near the study area (ENV, 2025b). Table 1, below, provides a summary of information for registered wells mapped within the study area and within 2 km of the study area. Additionally, Table 1 includes a summary of information for all wells reported as completed in Aquifer 687 (which underlies a portion of the study area) for which sufficient lithology, completion depths and yield information were available.

Table 1. Summary of information for registered wells near the study area from the GWELLS database

Location	Number of Wells	Depth Range (m)	Average Depth (m)	Static Water Level Range (m)	Average Static Water Level (m)	Yield Range (L/s)	Average Yield (L/s)
Within study area	13	10.7 – 77.4	25.4	6.71 – 32.0	14.5	0 – 12.6	2.06
Within 2 km of the study area	12	8.53 – 61.0	20.5	3.96 – 37.2	17.6	0 – 6.31	1.30
Aquifer 687	14	8.53 – 41.5	16.3	6.71 – 37.2	17.7	0 – 12.6	1.80

Within the study area, there are 13 registered wells mapped in the GWELLS database and 12 wells outside of the study area within 2 km. The majority of the wells are for private domestic use and would not have been designed for larger yields. WTN 131613 is stated to be used for a water supply system and is owned by BC Hydro and the District of Taylor; however, no well log was provided and little information was reported for the well (ENV, 2025b).

Table 2, on the following page, includes select details for the wells organized as within and outside of the study area. For our purposes, WTN 131559 and WTN 107701 were removed from Table 1 as one was decommissioned and the other is a spring.

Table 2. Details of registered wells near the study area

Well Tag Number	Depth (m)	Static Water Level (m)	Yield (L/s)	Well Diameter (mm)	Use	Licence Status	Aquifer
Wells Located Within Study Area							
37565	14.9	9.14	0.379	-	Private Domestic	Unlicensed	687
40044	15.9	-	0.315	-	Private Domestic	Unlicensed	687
38089[1]	12.2	-	-	-	Private Domestic	Unlicensed	687
32433	13.1	10.1	0.315	-	Private Domestic	Unlicensed	687
101454	14.3	7.92	12.6	150	Private Domestic	Unlicensed	687
104367[1]	12.2	-	-	-	Unknown Well Use	Unlicensed	687
59832	11.9	-	2.52	-	Private Domestic	Unlicensed	687
59976	77.4	32.0	0.0126	-	Private Domestic	Unlicensed	-
102653	29.9	21.3	0.441	130	Private Domestic	Unlicensed	-
15521	10.7	6.71	0	-	Private Domestic	Unlicensed	687
40220	67.1	Dry	N/A	-	Unknown Well Use	Unlicensed	-
Wells Located Outside of Study Area							
131613	12.19	-	-	-	Water Supply System	Unlicensed	687
107672	-	-	-	-	-	-	-
57620	12.19	-	1.77	-	Unknown Well Use	Unlicensed	687
43178	10.06	-	-	-	Private Domestic	Unlicensed	687
43383	8.53	-	-	-	Private Domestic	Unlicensed	687
19074	9.14	6.71	-	-	Private Domestic	Unlicensed	687
58129	41.45	35.36	0.95	-	Private Domestic	Unlicensed	687
59583	39.62	37.19	0.95	-	Private Domestic	Unlicensed	687
102464	61.0	-	-	150	Private Domestic	Unlicensed	-
1069	10.27	4.88	1.64	-	Private Domestic	Unlicensed	-
102761	11.6	3.96	6.31	168	Private Domestic	Unlicensed	-
56440	8.84	4.12	0.54	-	Unknown Well Use	Unlicensed	-

[1]Well logs reported “water not fit for use”

The search results for wells within Aquifer 687 and bedrock wells within the study area are described in further detail below.

Aquifer 687

There are 15 wells completed in Aquifer 687 of which 7 are within the study area. All 7 wells are relatively shallow at an average depth of 13.15 m. The highest yield of the 7 wells and all the wells in the search area is WTN 101454 at 12.6 L/s. All the wells were drilled through an initial layer of sand and silt or clay and silt overlying material ranging from coarse grain sand to "pea gravel" (medium gravel). Outside of the study area, there are another 8 wells within Aquifer 687.

Unmapped Bedrock Aquifer

Three wells within the study area are not identified as sourcing water from Aquifer 687. These wells are generally located at higher elevations and are drilled to greater depths, with an average depth of 46.3 m. Static water depths in these wells are reported at 32.0 m, 21.3 m, 6.71 m, and one well was reported dry. The lithology at these locations typically consists of approximately 20 m of sand overlying shale bedrock. As mentioned above, Aquifer 687 may extend further north than mapped and may be the source aquifer for these wells.

None of the reported yields within or near the study area meets Dawson Creek's preliminary water demand of 463 L/s (7,339 Usgm). However, all of the reported wells are smaller diameter wells intended for domestic use and would not have been drilled with the intent of maximizing water yields. As well yields in the database come from drillers' interpretations, often through methods such as air lifting with the drill rig, an estimate using this methodology is also considered approximate and not necessarily indicative of the long-term well yields.

3.1 Surface and Groundwater Allocation Status

To assist with decision making on water licence applications, the Province places notations on streams and aquifers that may have a potential lack of water availability. Extracting groundwater from an aquifer that is hydraulically connected to surface water can result in streamflow depletion. Depending on the level of hydraulic connection between a surface water body and groundwater source, a groundwater source developed in an aquifer hydraulically connected to a fully recorded surface water body may require additional assessment to obtain a water licence from the Province.

Within the study area, there are two streams that drain into the Peace River: Pingel Creek, on the west side of the study area, and an unnamed creek on the east side. None of the streams in the study area have documented water shortage notations, indicating that there is likely a surplus water available for additional water licences. The aquifer underlying the study area also has no allocation notations associated with it and, considering its unconfined nature, is likely hydraulically connected to the Peace River (Province of British Columbia, 2016).

4. WATER QUALITY

Limited groundwater quality information is publicly available from the GWELLS database. As noted in Section 2.3.1, investigation carried out by the Province and available water quality data reported on drill logs indicate that water from Aquifer 687 is relatively hard. As the aquifer is likely in direct hydraulic connection with the Peace River, the source may be considered Groundwater at Risk of Containing Pathogens (GARP), depending on the impacts of this to water quality. GARP sources require similar disinfection treatment objectives to drinking water

sourced from surface water (ENV, 2025b). Prior to drilling production wells, water quality should be evaluated through the drilling and sampling of test wells.

5. CONTAMINATED SITES

Western Water completed a search of the Federal and Provincial Contaminated sites databases for the study area to assess potential impacts to groundwater. Four Provincially registered sites were identified on or within 500 m of the study area on the south side of the Peace River (ENV, 2025g). Western Water requested detailed site reports for all of the reported sites and all were associated with notices of independent remediation. Select details for the sites are included for reference in Table 3, the locations are visually depicted on Figure 5 and detailed reports are included for reference in Appendix A.

Table 3. Select details for reported Site Registry locations

Site	Address	Classification	Notation Type	Completion Date
29387	5792 Taylor Flats Subdivision	Non-High Risk	Notice of Independent Remediation	2024-11-05
29388	5793 Taylor Flats Subdivision	Non-High Risk	Notice of Independent Remediation	2024-11-05
29444	17-24-082-18 W6MRANGE18 West of 6TH Meridian	-	Notice of Independent Remediation	2024-10-03
29389	2000 Taylor Park Subdivision	Non-High Risk	Notice of Independent Remediation	2024-11-05

Detailed reports for the registered sites indicated that independent remediation was undertaken and completed for all of the sites in 2024 under the supervision of environmental consultants. As no other submissions were reported, including notices of offsite migration, we do not consider the sites to be a risk to a future drinking water source within the study area.

6. CONCLUSIONS AND RECOMMENDATIONS

A groundwater supply feasibility study was carried out for the study area just south of Taylor, BC. From our review of available information, a portion of the study area is underlain by Aquifer 687, an unconfined sand and gravel aquifer. Aquifer 687 underlies the west portion of the study area and likely extends further to the east at lower elevations along the Peace River.

A groundwater supply developed in the provided study area would likely source water from this aquifer. The reported yields of existing registered wells in the aquifer range from 0 to 12.6 L/s. However, the existing wells would not have been designed for higher yields than typically required for a single dwelling. The aquifer is likely in hydraulic connection to the Peace River similar to those currently providing drinking water to the municipalities of Taylor and Fort St. John. Limited information is available for existing wells within the study area and on the thickness of the aquifer which would be a major consideration for a high capacity well in the area. Based on aquifer

mapping and information from registered wells in the area, we are of the opinion that there is a moderate probability of developing a groundwater source capable of supplying the requested water demand of 463 L/s. Conversations with local drillers indicate that the aquifer is likely directly overlying shale bedrock and would not be expected to be more than 6 m thick indicating that several large diameter wells would be necessary to meet the desired demand. In addition, large capacity wells in the area are known to require regular redevelopment to maintain capacity which would be an operational consideration and we recommend early engagement with a civil consultant.

Ultimately, this assessment is based on limited information available for the area highlighting the need for a physical groundwater exploration program. Should further investigation into the groundwater supply potential in the area be pursued, exploratory drilling is recommended. 150 mm diameter exploratory test wells are recommended in six individual locations along the Peace River (Figure 6) to confirm the presence of the aquifer in eastern portions of the study area and the aquifer thickness in the western portions. The selected locations target lower-elevation areas where a known productive aquifer is present according to drillers logs or where similar historical depositional environments have been identified through aerial imagery analysis. Wells would be utilized to assess the availability of water quantity and quality and, if test well drilling indicates the presence of suitable hydrogeological conditions to support the desired groundwater demand, larger diameter production well(s) can then be designed and installed. To provide the requested water volume, it is anticipated that multiple large diameter wells would be required. Land ownership and availability for the test well drilling locations was not included in the scope of work and would need to be confirmed prior to initiating a test well drilling program.

Table 4 provides a high-level cost estimate to complete a well drilling and test pumping program that includes 150 mm wells drilled to 30 m after which a test pump would be installed to determine aquifer parameters and assess water quality. Water wells are typically drilled and invoiced on a per foot basis which varies according to market costs for casing.

Table 4. Cost Estimate for Test/Production Well Drilling

Scope of Work	Cost Estimate
Well drilling and development (assumes drilling to 30 m)	$15,000
Pumping test (step test and 24-hour constant rate test)	$15,000
Total Per Well	**$30,000**
Total for 6 Test Wells	**$180,000**
Hydrogeological Assessment (project management, drilling/testing coordination, data compilation and reporting)	**$45,000**
Test Well Program Total (excluding tax)	**$225,000**

Any new groundwater supply well for the project will need to be licensed in accordance with the *Water Sustainability Act*, which requires non-domestic water users to apply for a water license and pay an application fee and annual water rental fees. The Ministry of Water, Land and Resource Stewardship (WLRS) oversees the water licensing process with applications processed via FrontCounterBC. An application would need to be made and then approved by the Province prior to using a new well for supply. As part of the licensing process, we anticipate the Province will require a Level 4 Technical Assessment in accordance with the 'Guidance for Technical

Assessment Requirements in Support of an Application for Groundwater Use in British Columbia' (Todd, 2020). A Level 4 assessment requires a detailed technical assessment by a professional with competency in hydrogeology and needs to include a minimum 72-hour pumping test with monitoring of at least one observation well. Considering that groundwater use in the area is largely domestic, permission from nearby well owners should be sought to monitor domestic wells during the pumping test to assess potential well interference and potential effects of a high capacity well on domestic groundwater users near the selected site. In addition, as the desired yield exceeds the 75 L/s trigger outlined in the *Environmental Assessment Act,* the well would also be subject to review by the Environmental Assessment Office (EAO). The EAO would require completion of an Environmental Assessment (EA) which is often a lengthy and expensive process, the first step of which would be to submit a project description.

7. CLOSURE

We trust this letter provides the information you require. If you have any questions, please contact us.

Western Water Associates
(EGBC Permit to Practice number 1001419)

Warren Grafton, P.Geo.
Hydrogeologist

Reviewed by:

Chad Petersmeyer, M.Sc., P.Geo.
Principal Hydrogeologist

Attachments:
Figures 1 through 6
Detailed Site Reports

8. REFERENCES

ENV. (2025a). *BC Geology and Soils*. Retrieved from Geology and Soils.

ENV. (2025b). BC Water Resource Atlas. British Columbia. Retrieved from https://apps.nrs.gov.bc.ca/gwells/

ENV. (2025c). Aquifer 634. *BC Water Resource Atlas*. British Columbia.

ENV. (2025d). Aquifer 443. *BC Water Resource Atlas*. British Columbia.

ENV. (2025e). Aquifer 442. *Aquifer Report*. BC Water Resource Atlas.

ENV. (2025f). Aquifer 1271. *Auifer Report*. BC Water Resource Atlas.

ENV. (2025g). Site Details Report. *Site Registry*. British Columbia.

Government of Canada. (2025). *Historical Climate Data*. Retrieved from https://climate.weather.gc.ca/

PCIC. (2014). *Climate Summary for: Northeast Region.* Retrieved from https://www.pacificclimate.org/sites/default/files/publications/Climate_Summary-Northeast.pdf

Province of British Columbia. (2016). *Determining the Likelihood of Hydraulic Connection.* Retrieved from Guidance for Determining the Effect of Diversion of Groundwater on Specific Streams: https://a100.gov.bc.ca/pub/acat/documents/r50832/HydraulicConnectMW3_1474311684426_4310694949.pdf

Todd, J., M. Lepitre, D. Thompson, J. Ishikawa, M. Wade, C. Beebe (2020). Guidance for Technical Assessments in Support of an Application for Groundwater Use in British Columbia, Version 2.0. Water Science Series 2020-01. Province of British Columbia, Victoria, B.C. Retrieved from https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-science-data/water-science-series

Figures

Dawson Creek Water Feasibility Study City of Dawson Creek
WWAL Project: 25-065-01PG

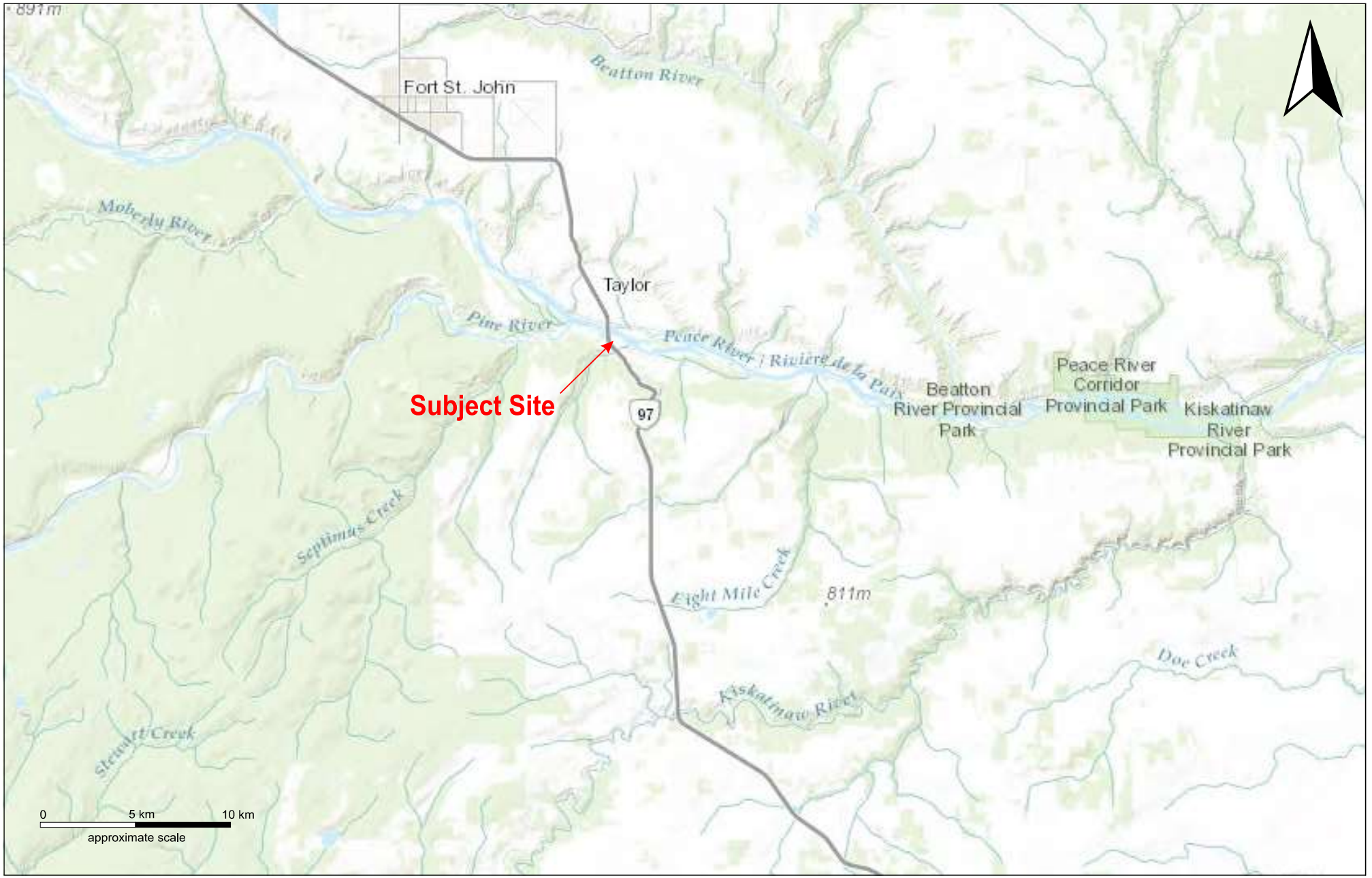


Figure 1: Site Location Map

Date: July 9th, 2025	Image Source: BC Water Resources Atlas		WWAL Project: 25-065-01PG
Drawn by: KB	Checked by: WG	Client: City of Dawson Creek	Client Project: N/A

western water ASSOCIATES LTD
Consultants in Hydrogeology and Water Resources Management

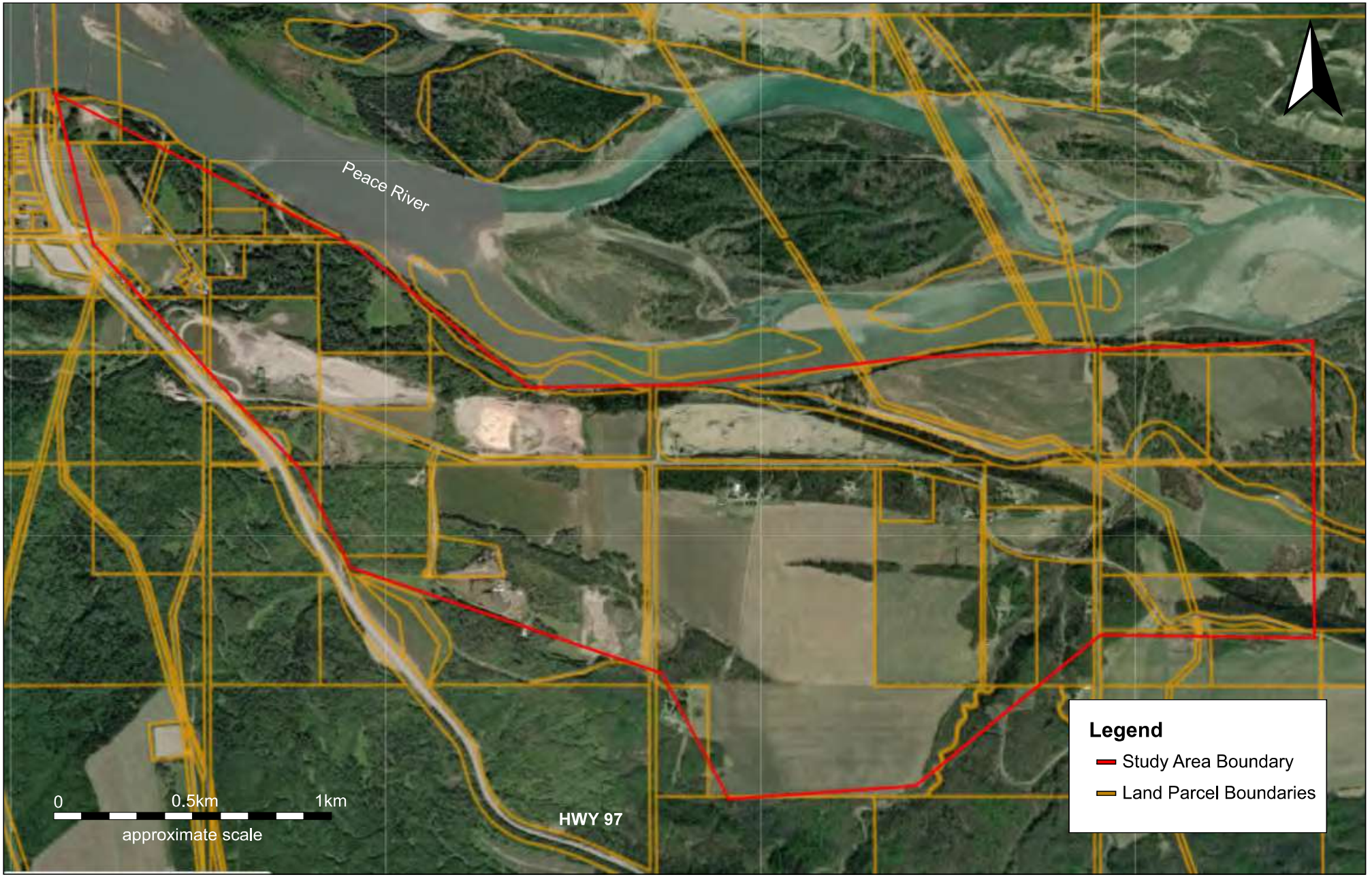


Figure 2: Study Area
(Study Area Provided by Client)

Date: July 9th, 2025	Image Source: BC Water Resources Atlas		WWAL Project: 25-065-01PG
Drawn by: KB	Checked by: WG	Client: City of Dawson Creek	Client Project: N/A

western water ASSOCIATES LTD
Consultants in Hydrogeology and Water Resources Management

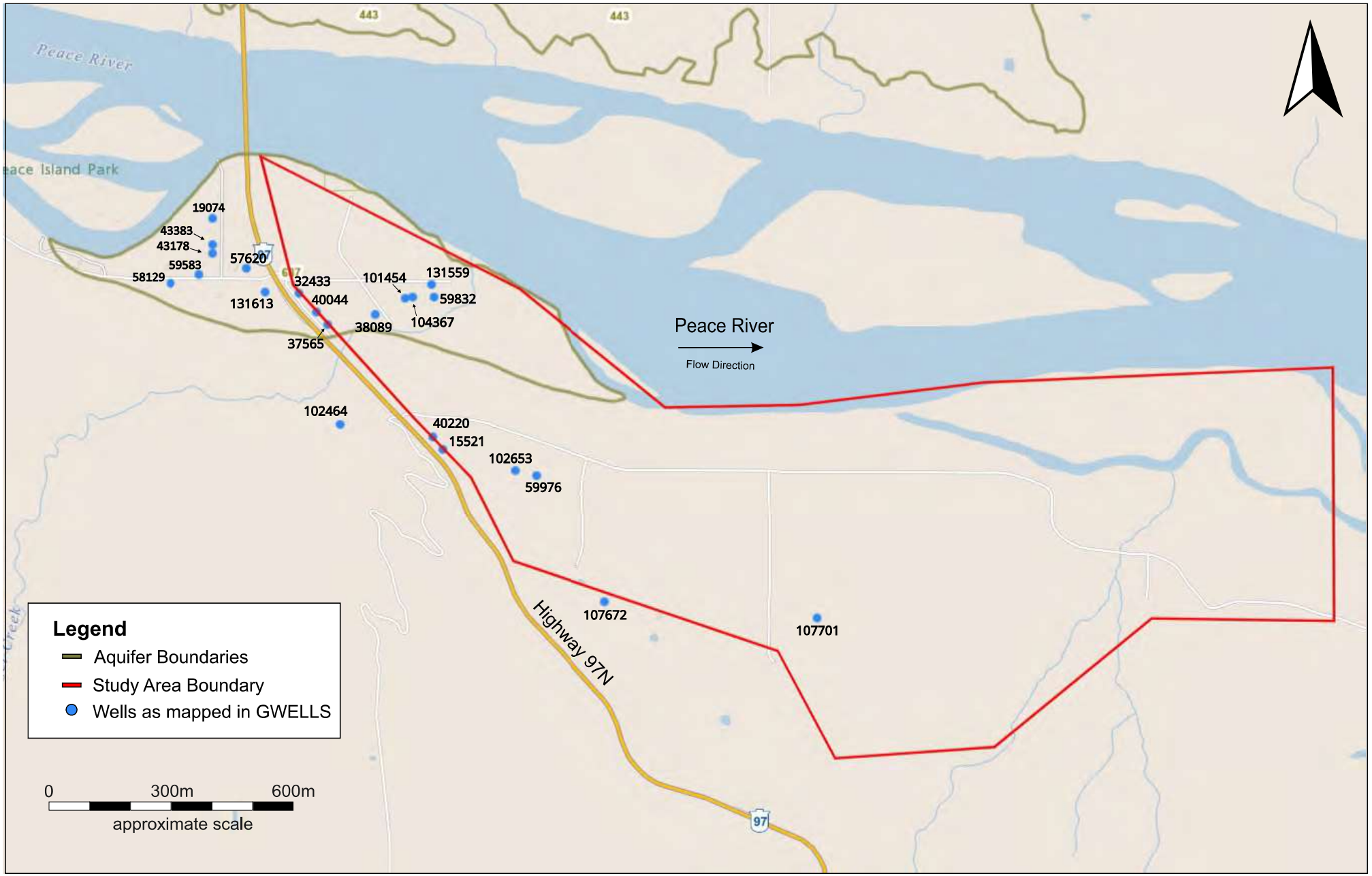


Figure 3: Area Wells (by WTN) and Surface Water Bodies

Date: July 9th, 2025	Image Source: BC Water Resources Atlas		WWAL Project: 25-065-01PG
Drawn by: KB	Checked by: WG	Client: City of Dawson Creek	Client Project: N/A

western water ASSOCIATES LTD
Consultants in Hydrogeology and Water Resources Management

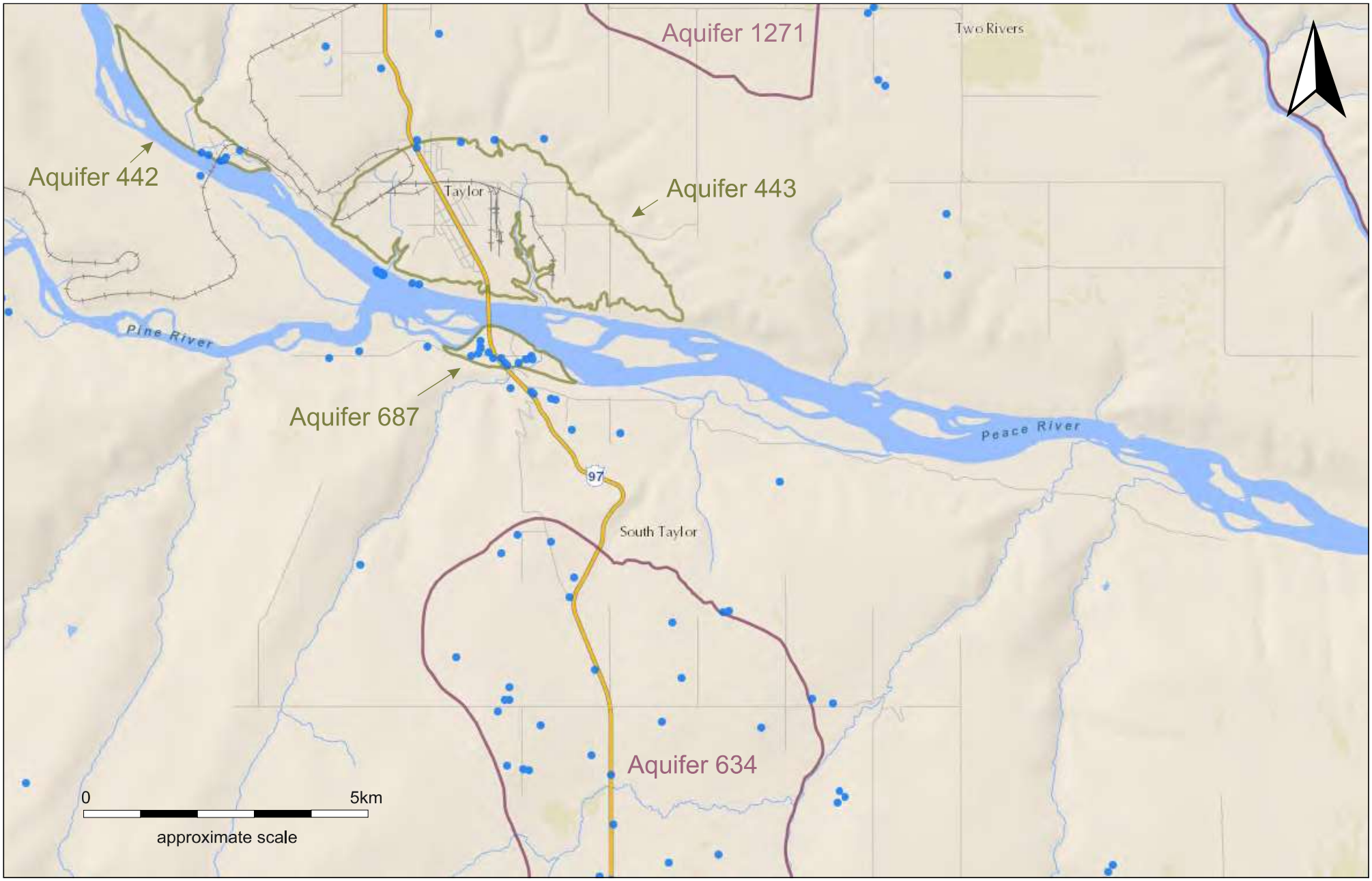


Figure 4: Aquifer Map

Date: July 9th, 2025	Image Source: BC Water Resources Atlas		WWAL Project: 25-065-01PG
Drawn by: KB	Checked by: WG	Client: City of Dawson Creek	Client Project: N/A

western water ASSOCIATES LTD
Consultants in Hydrogeology and Water Resources Management

Figure 5: Environmental Remediation Sites (By Site ID)

Date: July 9th, 2025	Image Source: BC Water Resources Atlas		WWAL Project: 25-065-01PG
Drawn by: KB	Checked by: WG	Client: City of Dawson Creek	Client Project: N/A

western water ASSOCIATES LTD
Consultants in Hydrogeology and Water Resources Management

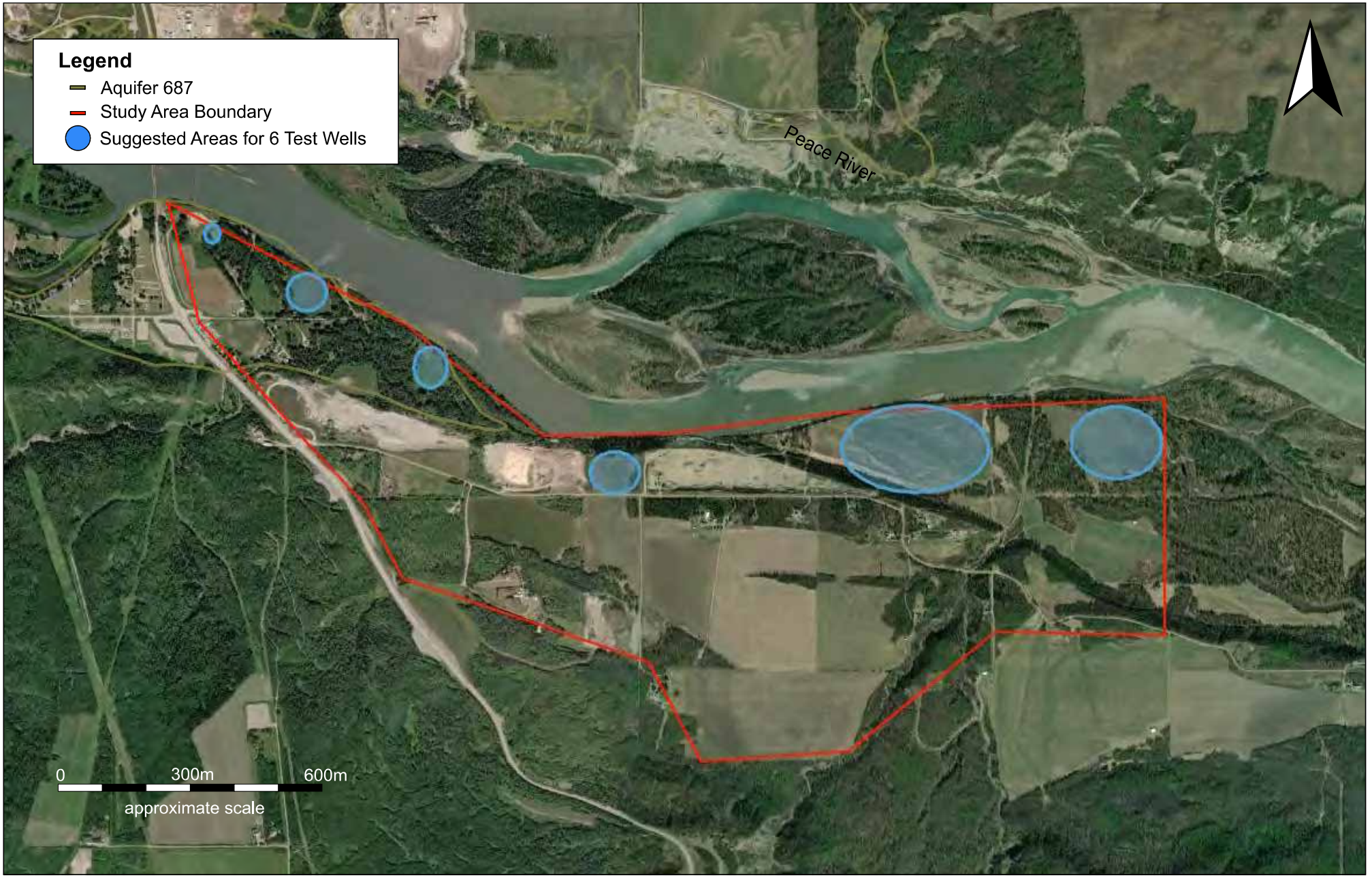


Figure 6: Suggested Areas for Test Wells

Date: July 9th, 2025	Image Source: BC Water Resources Atlas		WWAL Project: 25-065-01PG
Drawn by: KB	Checked by: WG	Client: City of Dawson Creek	Client Project: N/A

western water ASSOCIATES LTD
Consultants in Hydrogeology and Water Resources Management

Appendix A

Detailed Site Reports

Dawson Creek Water Feasibility Study
City of Dawson Creek
WWAL Project: 25-065-01PG

Site Registry - Site Details Report

BC Registries and Online Services

SITE LOCATION

Site ID:	29387	**Latitude:**	56d 7m 51.9s
Victoria File:	26250-20/29387	**Longitude:**	120d 39m 39.7s
Regional File:			
Common Name:	5792 TAYLOR FLATS SUBDIVISION	**Prov/State:**	BC
Site Address:	5792 TAYLOR FLATS SUBDIVISION		
City:	TAYLOR		
Postal Code:	V0C 2K0		

Notations:	3	**Participants:**	4	**Associated Sites:**	0
Documents:	0	**Susp. Land Use:**	0	**Parcel Descriptions:**	1

Location Description:

NOTATIONS:

Notation Type: NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-09-17 COMPLETION DATE: 2024-11-05
Required Actions:

Notation Participants

Name: PINCHIN LTD.
Role: SUBMITTED BY

Notation Type: SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CRUMP, ALANA
Note:
Required Actions:

Notation Participants

Name: PINCHIN LTD.
Role: SUBMITTED BY

Notation Type: NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-09-17 COMPLETION DATE: 2024-11-05
Required Actions:

Notation Participants

Name: PINCHIN LTD.
Role: SUBMITTED BY

SITE PARTICIPANTS:

Participant: CAVALES, HAZEL
Role(s): EMPLOYEE
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: CRUMP, ALANA
Role(s): EMPLOYEE
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: BRITISH COLUMBIA HYDRO AND POWER AUTHORITY
Role(s): ORGANIZATION
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: PINCHIN LTD.
Role(s): ORGANIZATION
Start Date: 2024-11-20 **End Date:**
Notes:

No documents have been submitted for this site

No associated sites have been submitted for this site

No suspect land uses have been submitted for this site

PARCEL DESCRIPTIONS:

Date Noted: 2024-11-21 **Parcel ID:** 008541230
Crown Land PIN: **Crown Lands File Number:**
Land Description: THE SOUTH 1/2 OF THE SOUTH WEST 1/4 OF LEGAL SUBDIVISION 4 SECTION 30TOWNSHIP 82 RANGE 17 WEST OF THE 6TH MERIDIAN PEACE RIVER DISTRICT

No site profile has been submitted for this site

End of Site Details Report

Site Registry - Site Details Report

BC Registries and Online Services

SITE LOCATION

Site ID:	29388	**Latitude:**	56d 7m 46.0s
Victoria File:	26250-20/29388	**Longitude:**	120d 39m 31.5s
Regional File:			
Common Name:	5793 TAYLOR FLATS SUBDIVISION	**Prov/State:**	BC
Site Address:	5793 TAYLOR FLATS SUBDIVISION		
City:	TAYLOR		
Postal Code:	V0C 2K0		

Notations:	3	**Participants:**	5	**Associated Sites:**	0
Documents:	0	**Susp. Land Use:**	0	**Parcel Descriptions:**	1

Location Description: LAT/LONG PROVIDED IN NIR. VERIFIED IN IMAP BC.

NOTATIONS:

Notation Type: NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-09-17 COMPLETION DATE: 2024-11-05
Required Actions:

Notation Participants

Name: PINCHIN WEST LTD
Role: SUBMITTED BY

Notation Type: SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CRUMP, ALANA
Note:
Required Actions:

Notation Participants

Name: PINCHIN LTD.
Role: SUBMITTED BY

Notation Type: NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-09-17 COMPLETION DATE: 2024-11-05
Required Actions:

Notation Participants

Name: PINCHIN WEST LTD
Role: SUBMITTED BY

SITE PARTICIPANTS:

Participant: CAVALES, HAZEL
Role(s): EMPLOYEE
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: PINCHIN WEST LTD
Role(s): ORGANIZATION
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: CRUMP, ALANA
Role(s): EMPLOYEE
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: PINCHIN LTD.
Role(s): ORGANIZATION
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: BRITISH COLUMBIA HYDRO AND POWER AUTHORITY
Role(s): ORGANIZATION
Start Date: 2024-11-20 **End Date:**
Notes:

No documents have been submitted for this site

No associated sites have been submitted for this site

No suspect land uses have been submitted for this site

PARCEL DESCRIPTIONS:

Date Noted: 2024-11-21 **Parcel ID:** 014399539

Crown Land PIN:	**Crown Lands File Number:**
Land Description:	THE NORTH 1/2 OF LEGAL SUBDIVISION 13 SECTION 19 TOWNSHIP 82 RANGE 17 WEST OFTHE 6TH MERIDIAN PEACE RIVER DISTRICT, EXCEPT PLAN 7999

No site profile has been submitted for this site

End of Site Details Report

Site Registry - Site Details Report

BC Registries and Online Services

SITE LOCATION

Site ID:	29389	**Latitude:**	56d 7m 49.0s
Victoria File:	26250-20/29389	**Longitude:**	120d 39m 46.8s
Regional File:			
Common Name:	2000 TAYLOR PARK SUBDIVISION	**Prov/State:**	BC
Site Address:	2000 TAYLOR PARK SUBDIVISION		
City:	TAYLOR		
Postal Code:	N/A		

Notations:	3	**Participants:**	3	**Associated Sites:**	0
Documents:	0	**Susp. Land Use:**	0	**Parcel Descriptions:**	1

Location Description: LAT/LONG PROVIDED IN NIR. VERIFIED IN IMAP BC.

NOTATIONS:

Notation Type: NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-09-17 COMPLETION DATE: 2024-11-05
Required Actions:

Notation Participants

Name: PINCHIN LTD.
Role: SUBMITTED BY

Notation Type: SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CRUMP, ALANA
Note:
Required Actions:

Notation Type: NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-11-20
Completed: 2024-11-20
Ministry Contact: CAVALES, HAZEL

Note: INITIATION DATE: 2024-09-17 COMPLETION DATE: 2024-11-05
Required Actions:

Notation Participants

Name: PINCHIN LTD.
Role: SUBMITTED BY

SITE PARTICIPANTS:

Participant: CAVALES, HAZEL
Role(s): EMPLOYEE
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: BRITISH COLUMBIA HYDRO AND POWER AUTHORITY
Role(s): ORGANIZATION
Start Date: 2024-11-20 **End Date:**
Notes:

Participant: PINCHIN LTD.
Role(s): ORGANIZATION
Start Date: 2024-11-20 **End Date:**
Notes:

No documents have been submitted for this site

No associated sites have been submitted for this site

No suspect land uses have been submitted for this site

PARCEL DESCRIPTIONS:

Date Noted: 2024-11-22 **Parcel ID:** 017801125
Crown Land PIN: **Crown Lands File Number:**
Land Description: PARCEL 1 SECTION 24 TOWNSHIP 82 RANGE 18 WEST OF THE 6TH MERIDIANPEACE RIVER DISTRICT PLAN PGP36251

No site profile has been submitted for this site

End of Site Details Report

Site Registry - Site Details Report

BC Registries and Online Services

SITE LOCATION

Site ID:	29444	**Latitude:**	56d 7m 44.6s
Victoria File:	26250-20/29444	**Longitude:**	120d 40m 09.4s
Regional File:			
Common Name:	LOT17 SECTION24 RANGE18 DP3039 TS82	**Prov/State:**	BC
Site Address:	17-24-082-18 W6M RANGE18 WEST OF THE 6TH MERIDIAN		
City:	FORT ST. JOHN		
Postal Code:	T2P 3L8		

Notations:	4	**Participants:**	3	**Associated Sites:**	0
Documents:	0	**Susp. Land Use:**	0	**Parcel Descriptions:**	1

Location Description: LAT/LONG PROVIDED IN NIR. VERIFIED IN IMAP BC.

NOTATIONS:

Notation Type: NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-12-19
Completed: 2024-12-19
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-08-21 COMPLETION DATE: 2024-10-03
Required Actions:

Notation Participants

Name: SLR CONSULTING (CANADA) LTD.
Role: SUBMITTED BY

Notation Type: NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2024-12-19
Completed: 2024-12-19
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-08-21 COMPLETION DATE: 2024-10-03
Required Actions:

Notation Participants

Name: SLR CONSULTING (CANADA) LTD.
Role: SUBMITTED BY

Notation Type: NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2025-01-10
Completed: 2025-01-10
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-08-21 COMPLETION DATE: 2024-10-10
Required Actions:

Notation Participants

Name: SLR CONSULTING (CANADA) LTD.
Role: SUBMITTED BY

Notation Type: NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2025-01-10
Completed: 2025-01-10
Ministry Contact: CAVALES, HAZEL
Note: INITIATION DATE: 2024-08-21 COMPLETION DATE: 2024-10-10
Required Actions:

Notation Participants

Name: SLR CONSULTING (CANADA) LTD.
Role: SUBMITTED BY

SITE PARTICIPANTS:

Participant: CAVALES, HAZEL
Role(s): EMPLOYEE
Start Date: 2024-12-19 **End Date:**
Notes:

Participant: ENBRIDGE PIPELINES INC. (PROPERTY OWNED BY BC HYDRO)
Role(s): ORGANIZATION
Start Date: 2024-12-19 **End Date:**
Notes:

Participant: SLR CONSULTING (CANADA) LTD.
Role(s): ORGANIZATION
Start Date: 2024-12-19 **End Date:**
Notes:

No documents have been submitted for this site

No associated sites have been submitted for this site

No suspect land uses have been submitted for this site

PARCEL DESCRIPTIONS:

Date Noted:	2024-12-27	**Parcel ID:**	013828827
Crown Land PIN:		**Crown Lands File Number:**	
Land Description:	LOT 17 SECTION 24 TOWNSHIP 82 RANGE 18 WEST OF THE 6TH MERIDIANPEACE RIVER DISTRICT PLAN 3039 EXCEPT PLAN 14596 AND EPP44495		

No site profile has been submitted for this site

End of Site Details Report

Groundwater Supply Development and Management

Source Water Assessment and Protection

Well Monitoring & Maintenance

Environmental & Water Quality Monitoring

Storm & Wastewater Disposal to Ground

Groundwater Modeling

Aquifer Test Design and Analysis

Geothermal / Geoexchange Systems

Policy and Guideline Development

Applied Research

Rural Subdivision Services

Environmental Assessment & Permitting

Western Water Associates Ltd.
Standard Report Limitations

1. This Document has been prepared for the particular purpose outlined in the work scope that has been mutually agreed to with the Client.
2. The scope and the period of service provided by Western Water Associates Ltd are subject to restrictions and limitations outlined in subsequent numbered limitations.
3. A complete assessment of all possible conditions or circumstances that may exist at the Site or within the Study Area referenced, has not been undertaken. Therefore, if a service is not expressly indicated, it has not been provided and if a matter is not addressed, no determination has been made by Western Water Associates Ltd. in regards to it.
4. Conditions may exist which were undetectable given the limited nature of the enquiry that Western Water Associates Ltd. was retained to undertake with respect to the assignment. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the Site, or Study Area, which have not been revealed by the investigation and which have not therefore been taken into account in the Document. Accordingly, additional studies and actions may be required.
5. In addition, it is recognised that the passage of time affects the information and assessment provided in this Document. Western Water Associates Ltd's opinions are based upon information that existed at the time of the production of the Document. It is understood that the Services provided allowed Western Water Associates Ltd to form no more than an opinion of the actual conditions of the Site, or Study Area, at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the Site, or Study Area, nor the surroundings, or any laws or regulations.
6. Any assessments made in this Document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either expressed or implied, that the actual conditions will conform exactly to the assessments contained in this Document.
7. Where data supplied by the Client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated.
8. No responsibility is accepted by Western Water Associates Ltd for incomplete or inaccurate data supplied by others.
9. The Client acknowledges that Western Water Associates Ltd may have retained sub-consultants affiliated to provide Services. Western Water Associates Ltd will be fully responsible to the Client for the Services and work done by all of its sub-consultants and subcontractors. The Client agrees that it will only assert claims against and seek to recover losses, damages or other liabilities from Western Water Associates Ltd.
10. This Document is provided for sole use by the Client and is confidential to it and its professional advisers. No responsibility whatsoever for the contents of this Document will be accepted to any person other than the Client. Any use which a third party makes of this Document, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. Western Water Associates Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Document