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November 22, 2011

Front Counter BC
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RE: Application for Crown Land Tenure – Statutory Right of Way and Temporary Workspace through That Part of Unsurveyed Crown Land Being the Bed of the Cottonwood River as Shown on Plan CG485, CG902 and Plan 20614, Cariboo District 2011Spectra Energy Cottonwood River Pipeline Replacement Project, North of Quesnel

Spectra Energy Transmission is proposing to replace a section of existing high pressure natural gas pipeline under the Cottonwood River at a site located approximately 20 kms north of the City of Quesnel.

The project will require new statutory right of way and temporary workspace within the bed of the Cottonwood River to allow for replacement on a section of the 30" natural gas pipeline located at the crossing of the Cottonwood River. Work on this project is scheduled to commence in February of 2012 through to March 2012.

The following Crown Land Tenure application contains details of the project as outlined under the oil and gas application requirements list. They are as follows;

- Completed Crown Land Tenure application form (4 pages)
- Program specific management plan (4 pages plus Fig: 3 Schematic)
- Two General Location Maps at 1:250K & 1:50K Scale
- Site Survey Cottonwood River ~1:2 000 Scale - *Appendix 'A'*
- Copies of the CofT's and relevant legal survey plans of Spectra Energy's existing tenure within the Bed of the Cottonwood River – *Appendix 'B', 'C' and 'D'*
- Cottonwood River 30" Conceptual Plan
- Site Specific Photographs (5 photographs)

We trust that this package contains sufficient information to proceed with the Crown Land Tenure application. Please contact the writer if you required additional information or details on the project.

Sincerely,

Bill Cameron

Bill Cameron, Land Resource Agent
Spectra Energy Prince George

Cottowood River Replacement Project

November 22, 2011

Section A – Project Overview

Spectra Energy Transmission (SET) is proposing to remove an existing 30 inch mainline natural gas pipeline that is exposed in the Cottonwood River and replace it with a deeper 30 inch pipeline 20m west of and adjacent to existing pipeline alignment. The project is located approximately 20 kms north of Quesnel along SET's 30" mainline pipeline right of way west of Quesnel Hixon Road.

In August 2010, SET conducted an aerial inspection of the Cottonwood River. The inspection revealed that the 30" mainline pipeline was exposed at the northern active channel. Subsequent attempts in the winter 2010/2011 to provide temporary protection were unsuccessful and as a result SET proposes to replace the exposed 30" pipeline with a deeper pipeline within the bed of the Cottonwood River prior to the 2012 spring freshet.

The relocation within the bed of the Cottonwood River will require a new 30m wide statutory right of way and an additional 30m width of temporary workspace west of its current position. The replacement pipeline will be centred within the new statutory right of way and extend into private land for an approximate distance of 270 metres north and 230m south of the Cottonwood River crossing within Cariboo District Lot 8599 and District Lot 8600 respectively. Refer to the attached plans for location:

- **General Location Map (1:250,000 Scale)**
- **General Location Map (1:50,000 Scale)**
- **Spectra Energy Site Survey Cottonwood River (1:2,000 Scale)**
- **Figure 3 Schematic Diagram Methodology**

Figure 3 illustrates the proposed scope of activities and methodology required to accommodate the installation of the new pipeline section and complete restoration of the river channel/floodplain areas. Water flow will need to be diverted between both channels during this process. The installation of the new pipeline section will extend to both the north and south floodplain areas.

Access to the project area will be via the existing access along the pipeline right of way from Tertiary Road (north side) through District Lot 8599 and via Morris Road (south side) through District Lot 8600 both roads accessible from Quesnel Hixon Road. It is anticipated that both accesses will be used by equipment and materials for the duration of the work.

Construction is anticipated to commence in February of 2012 with completion by the end of March 2012.

Section B – Project Description

The project is a replacement of a section of the existing 30" natural gas pipeline as a part of SET's pipeline integrity management program. The work is required to ensure the future integrity of the pipeline which is the main source of natural gas along the Highway 97 corridor and lower mainland of British Columbia. Project details are as follows:

- Replacement of 380 metres (approximate length) of the 30" diameter natural gas pipeline.
- Primary access to the Cottonwood River would be along the existing statutory right of way from the north through private lands (DL 8599) from Tertiary Road.

- Land use on the adjacent developed parcels consists of agriculture lands for hay crop on the north side of the river and agricultural lands for cattle ranching on the south side.

  Previous attempts to protect the pipeline at this location in February 2011 using concrete armour-flex mat protection proved unsuccessful due to the 2011 spring freshet event .

- There are no additional utility and/or power requirements for the project. Any temporary power requirements will be accommodated by portable generators.

- We anticipate no water requirements for this project.

- No septic fields or other long-term sewage facilities are required for this project. Portable toilets will be used onsite for the duration of the work.

- Existing utilities are located immediately east of the existing pipeline right of way and from Tertiary Road located approximately 600m north.

- There are no other expected development impacts. No additional facilities or capacity will be added as a result of this project.

Section C – Additional Information

I. Environmental

a. **Land Impacts** – the entire project area will be within the Bed of the Cottonwood River and District Lots 8599 and 8600 Cariboo District.

   The work area consists of the following terrain;
   - The works site is located in the Cottonwood River valley and will be within the existing wetted channel of the Cottonwood River and floodplain area north and south of the pipeline river crossing.
   - The floodplain area north and south is approximately 2 to 3 metres higher than the thalweg of the river.

   As part of the work;
   - Vegetation will be cleared on the north and south banks of the river channel to facilitate access.
   - Minimal logging will occur on private lands both sides of the river crossing
   - SET is currently participating in an Archaeological Impact Assessment of the study of the area. Details of the report will be forwarded to MFLNRO.

b. **Atmospheric Impacts** – overall impacts are expected to be minimal. It is anticipated that during the project impacts are expected to consist of the following;
   - Temporary emissions from construction diesel equipment and traffic working onsite including support heavy equipment, generators and vehicles.
   - There are expected to be no long term visual impacts other than minimal clearing of temporary workspace adjacent to the pipeline right of way.
   - Increased noise and dust levels from traffic are anticipated.
   - No long term emissions or ambient noise levels are anticipated to occur during future operation of the new section of 30" natural gas pipeline.

c. **Aquatic Impacts –** for the specific project in parallel with this application SET is currently;
   - Consulting with and in the process of containing approval from Fisheries and Oceans Canada (FOC);
   - Submitting a Section 9 Water Act application to the Ministry of Environment (MOE) and;
   - Submitting a 10 day Operations and Maintenance work around water notification to the National Energy Board.

   Environmental management/remediation plans would be developed in conjunction with the above listed regulatory agencies to deal with potential issues related to the pipeline replacement within the instream area.

   The objective of the pipeline replacement is to minimize long term impacts/interactions of the pipeline systems with the Cottonwood River.

   Erosion and sediment control efforts will be implemented to reduce the potential for the dispersal of sediment from the work site into the Cottonwood River habitats.

c. **Fish and Wildlife** – the general study area has been reviewed by Triton Environmental Consultants for fish habitat, wildlife habitat and vegetation.

   Logging activities will be conducted during the winter and will have no impact on bird nesting windows.

   The Cottonwood River is a fish bearing stream. Prior to conducting instream works, a plan will be developed to design the construction process and procedures to minimize the impacts on fish and fish habitat. During any instream work SET would have an environmental monitor present to review work procedures and check on compliance with the recommended mitigation plan.

   An environmental monitor will report to the project chief inspector and will have crew shutdown authority for environmental protection to minimize any impacts on fish habitat.

II. Socio – Community

a. **Land Use –** the project is will have minimal impact on the existing land uses for this area. The adjacent area consists developed private land for rural farming purposes.

   Access to the north and south sides of the Cottonwood River is through private lands and is restricted to the public.

   The project will have no impact on current zoning for this area.

   SET has contacted and discussed the project with the owners of District Lot 8599 and District Lot 8600. Further discussions will follow.

   The project is not anticipated to have any impact on the trapline license holders.

b. **Socio-Community Conditions** – as this is a sparsely populated undeveloped area no adverse effects are expected for communities and demographics.

SET will be in consultations with the Ministry of Natural Resource Operations, regional district, associated utility companies and adjacent stakeholders to seek further input and permitting to lessen/mitigate any possible impacts to the public.

c. **Public Health** – project is not expected to increase any health risks or generate wastes.

III. Consultation

Residents – there are two landowners impacted by the proposed works. Spectra Energy has developed excellent relationships with them built over 50 years of safe, reliable operations. Spectra has contacted and discussed the project with the owners of District Lot 8599 and District Lot 8600. Further discussions will follow, as the project is designed.

Local Government – Spectra Energy will offer to meet with the local elected officials to provide project information and engage in a discussion of potential affects.

Trappers and Guide-outfitters – Spectra Energy will send project information to the holder of trap-line license TR502T054. There are no guide-outfitters in the area.

First Nations – Spectra will engage with potentially affected First Nations, during the consultation in support of the project. Consultation will include sending project information, where possible meeting with Chief and Council, exchanging information, discussing potential project impacts and mitigation options.

Consultation will involve meetings and/or correspondence via e-mail and/or letters, all conducted by SET employees working on this project. To the extent possible, the main priority of contact will be the Resource Office/Land Manager and/or Chief and Council.

The following First Nations will be contacted: Lhtako Dene Nation (Red Bluff Indian Band) and the Tsilqot'in Nation (c/o Alexandria First Nation). Spectra Energy will continue to consult with those Aboriginal communities and First Nations whose traditional territories are impacted by the project activities.

Bill Cameron

Bill Cameron

November 22, 2011

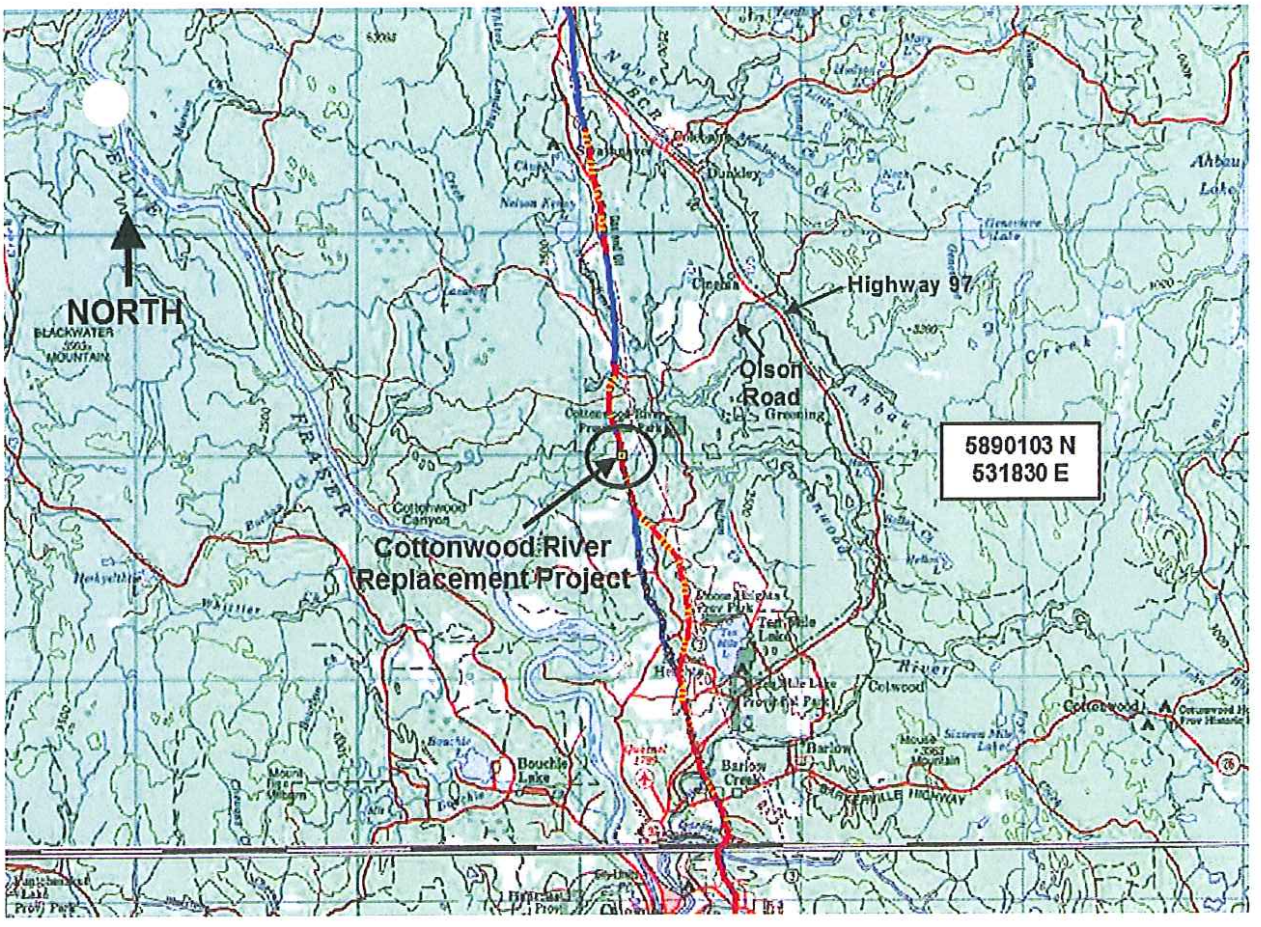

Figure 1: General Location Map – Spectra Energy Transmission Cottonwood Replacement Project

Approximate 1:250,000 Scale

Located approximately 20 kms north of Quesnel situated within the Cariboo Regional District

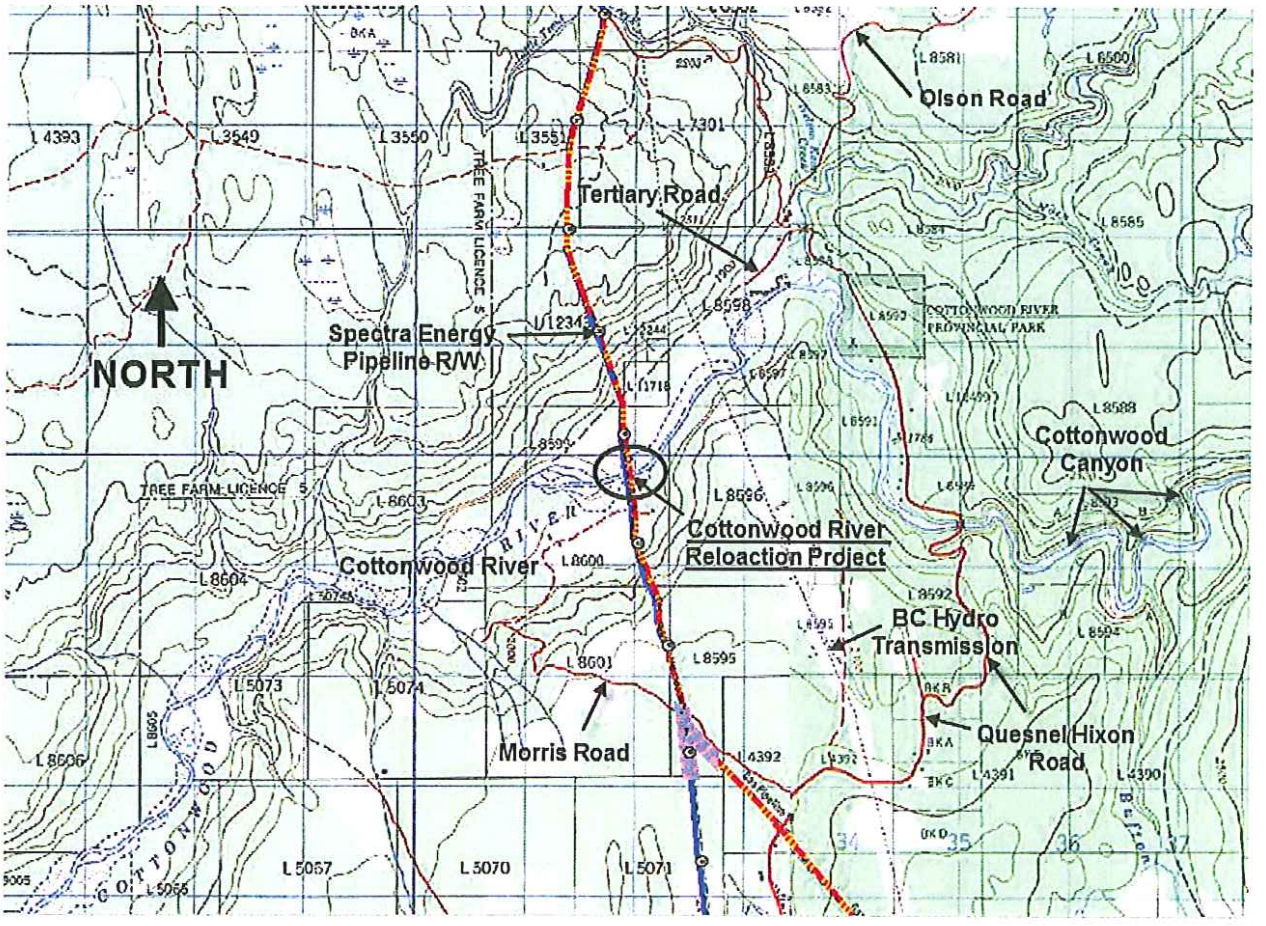

Figure 2: General Location Map – Spectra Energy Transmission Cottonwood River Replacement Project
Approximate 1:50,000 Scale

Located within the Bed of the Cottonwood River, District Lot 8599 and District Lot 8600 Cariboo District

Primary site access from the north via Tertiary and Quesnel Hixon Roads

Approximate UTM Zone 10 Coordinate Location: 5890103m N
531830m E