SITE C CLEAN ENERGY PROJECT

Emergency Services Plan

Site C Clean Energy Project

Revision 1: June 5, 2015

BC hydro FOR GENERATIONS

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Revision History

Version	Date	Comments
Draft	10-17-2014	**Draft**
Rev 0	05-19-2015	**Final Plan**
Rev 1	06-05-2015	**Final Plan, Revision 1**

1.0 Background

1.1 The Site C Clean Energy Project

The Site C Clean Energy Project (the Project) will be the third dam and generating station on the Peace River in northeast B.C. The Project will provide 1,100 megawatts of capacity and about 5,100 gigawatt hours of energy each year to the province's integrated electricity system. The Project will be a source of clean, reliable and cost-effective electricity for BC Hydro's customers for more than 100 years.

The key components of the Project are:

- an earthfill dam, approximately 1,050 metres long and 60 metres high above the riverbed;
- an 83 kilometre long reservoir that will be, on average, two to three times the width of the current river;
- a generating station with six 183 MW generating units;
- two new 500 kilovolt AC transmission lines that will connect the Project facilities to the Peace Canyon Substation, along an existing right-of-way;
- realignment of six segments of Highway 29 over a total distance of approximately 30 kilometers; and
- construction of a berm at Hudson's Hope.

The Project will also include the construction of temporary access roads, a temporary bridge across the Peace River, and worker accommodation at the dam site.

1.2 Project Benefits

The Project will provide important benefits to British Columbia and Canada. It will serve the public interest by delivering long term, reliable electricity to meet growing demand; contribute to employment, economic development, ratepayer, taxpayer and community benefits; meet the need for electricity with lower GHG impact than other resource options; contribute to sustainability by optimizing the use of existing hydroelectric facilities, delivering approximately 35 per cent of the energy produced at the W.A.C. Bennett Dam, with only five per cent of the reservoir area; and include an honourable process of engagement with First Nations and the potential for accommodation of their interests.

1.3 Environmental Assessment Process

The environmental assessment of the Project has been carried out in accordance with the *Canadian Environmental Assessment Act, 2012* (CEAA 2012), the *BC Environmental Assessment Act* (BCEAA), and the Federal-Provincial *Agreement to Conduct a Cooperative Environmental Assessment, Including the Establishment of a Joint Review Panel of the Site C Clean Energy Project*. The assessment considered the environmental, economic, social, heritage and health effects and benefits of the Project, and included the engagement of Aboriginal groups, the public, all levels of government, and other stakeholders in the assessment process.

Detailed findings of the environmental assessment are documented in the Site C Clean Energy Project Environmental Impact Statement (EIS), which was completed in accordance with the Environmental Impact Statement Guidelines (EIS Guidelines) issued by the Minister of Environment of Canada and the Executive Director of the Environmental Assessment Office of British Columbia. The EIS was submitted to regulatory agencies in January 2013, and amended in August 2013 following a 60 day public comment period on the assessment, including open house sessions in Fort St. John, Hudson's Hope, Dawson Creek, Chetwynd, town of Peace River (Alberta) and Prince George.

In August 2013, an independent Joint Review Panel (JRP) commenced its evaluation of the EIS, and in December 2013 and January 2014 undertook five weeks of public hearings on the Project in 11 communities in the Peace region, including six Aboriginal communities. In May 2014, the JRP provided the provincial and federal governments with a report summarizing the Panel's rationale, conclusions and recommendations relating to the environmental assessment of the Project. On completion of the JRP stage of the environmental assessment, the CEA Agency and BCEAO consulted with Aboriginal groups on the JRP report, and finalized key documents of the environmental assessment for inclusion in a Referral Package for the Provincial Ministers of Environment and Forests, Lands and Natural Resource Operations.

Construction of the Project is also subject to regulatory permits and authorizations, and other approvals. In addition, the Crown has a duty to consult and, where appropriate, accommodate Aboriginal groups.

1.4 Environmental Assessment Findings

The environmental assessment of the Project focused on 22 valued components (VCs), or aspects of the biophysical and human setting that are considered important by Aboriginal groups, the public, the scientific community, and government agencies. In the EIS, valued components were categorized under five pillars: environmental, economic, social, heritage and health. For each VC, the assessment of the potential effects of the Project components and activities during construction and operations was based on a comparison of the biophysical and human environments between the predicted future conditions with the Project, and the predicted future conditions without the Project.

Potential adverse effects on each VC are described in the EIS along with technically and economically feasible mitigation measures, their potential effectiveness, as well as specific follow-up and related commitments for implementation. If a residual effect was found on a VC, the effect was evaluated for significance. Residual effects were categorized using criteria related to direction, magnitude, geographic extent, context, level of confidence and probability, in accordance with the EIS Guidelines.

The assessment found that the effects of the Project will largely be mitigated through careful, comprehensive mitigation programs and ongoing monitoring during construction and operations. The EIS indicates that the Project is unlikely to result in a significant adverse effect for most of the valued components. However, a determination of a significant effect of the Project was found on four VCs: Fish and Fish Habitat, Wildlife Resources, Vegetation and Ecological Communities, and Current Use of Lands and Resources for Traditional Purposes.

1.5 Environmental Assessment Conclusion

On October 14, 2014, the Provincial Ministers of Environment and of Forests, Lands and Natural Resource Operation decided that the Project is in the public interest and that the benefits provided by the Project outweigh the risks of significant adverse environmental, social and heritage effects (http://www.newsroom.gov.bc.ca/2014/10/site-c-project-granted-environmental-assessment-approval.html). The Ministers have issued an Environmental Assessment Certificate setting conditions under which the Project can proceed.

Further, on November 25, 2014, The Minister of Environment of Canada issued a Decision Statement confirming that, while the Project has the potential to result in some significant adverse effects, the Federal Cabinet has concluded that those effects are justified in the circumstances. The Decision Statement sets out the conditions under which the Project can proceed.

1.6 Development of Mitigation, Management and Monitoring Plans

Mitigation, management and monitoring plans for the Project have been developed taking into account the measures proposed in the EIS, information received during the Joint Review Panel hearing process, and the Report of the Joint Review Panel on the Project. Those plans are consistent with, and meet requirements set out in, the conditions of the Environmental Assessment Certificate and of the Decision Statement issued on October 14, 2014 and November 25, 2014 respectively.

In addition, in accordance with environmental best practices (Condition 3.1), these plans were informed by the best available information and knowledge, based on validated methods and models, undertaken by qualified individuals and apply the best available economically and technologically feasible mitigation strategies. These plans contain provisions for review and update as new information on the effects of the Project and on the efficacy of the mitigation measures become available.

2.0 Emergency Services Plan

2.1 Objective

The objective of the Emergency Services Plan is to describe the mitigation measures that will address the potential effects of the Project on emergency services that may occur either directly through Project use of services, or indirectly through an increase in the local residential population and their related demand for services as resident (see Section 30 of the EIS for details).

The plan includes baseline information and/or mitigation measures for areas assessed in the EIS: the City of Dawson Creek, the City of Fort St. John, the District of Chetwynd, the District of Hudson's Hope, the District of Taylor, and the Peace River Regional District. Emergency services provided by the RCMP and the BC Ambulance Service are also considered in the plan.

The Plan has been prepared in accordance with Condition 43 of the Environmental Assessment Certificate, as indicated in the table below.

EAC Condition 43	Plan Reference
The EAC Holder must develop an Emergency Services Plan that includes at least the following to describe how the EAC Holder will implement measures to:	
• Contract for provision of emergency services (fire services and medical transport) ;	Section 6.1 Contracting for Emergency Services
• Communicate Project emergency management plans to all emergency service providers, and provide updates as plans are amended	6.2 Communication and Coordination with Emergency Service Providers
• Develop site access protocols to enable safe site access during construction and communicate to emergency service providers	Section 6.3 Site Access Protocols
For this condition, these emergency services refer only to Project need for emergency services during construction and are defined as those services relating to: firefighting, policing, ambulance services, Conservation Officer Service, Search and Rescue Associations, BC Wildfire Management Branch.	
The EAC Holder must provide this draft Emergency Services Plan to the appropriate local emergency service providers including the Peace River Regional District, City of Fort St. John, District of Hudson's Hope and District of Taylor for review a minimum of 90 days prior to the commencement of construction.	Section 2.2 Scope
The EAC Holder must file the final Emergency Services Plan with EAO, local emergency service providers including the Peace River Regional District, City of Fort St. John, District of Hudson's Hope and District of Taylor a minimum of 30 days prior to the commencement of construction.	
The EAC Holder must develop, implement and adhere to the final Emergency Services Plan, and any amendments, to the satisfaction of EAO.	

2.2 Scope

The scope of the Emergency Services Plan includes the following:

- For emergency services specifically contracted on Project construction sites, the scope includes fire services and transport of injured workers.
- For site access, communication protocols, and coordination of emergency services, the scope includes all emergency services including firefighting, the BC Wildfire Management Branch, policing, Conservation Officer Service, ambulance services, search and rescue services, that might be involved in a response to an emergency on a Project construction site.

2.3 Consultation

Many of the conditions require BC Hydro to consult or collaborate with certain government agencies and Aboriginal groups in respect of measures and plans required by the conditions.

BC Hydro began consultation on the Project in late 2007, before any decision to advance the Project to an environmental assessment. BC Hydro's consultation with the public, stakeholders, regional and local governments, regulatory agencies, and Aboriginal groups is described in EIS Section 9, Information Distribution and Consultation.

Additional information on the consultation process and a summary of issues and concerns raised during consultation are provided in:

- Volume 1 Appendix G, Public Information Distribution and Consulting Supporting Documentation
- Volume 1 Appendix H, Aboriginal Information Distribution and Consultation Supporting Documentation
- Volume 1 Appendix I, Government Agency Information Distribution and Consultation Supporting Documentation
- Volume 5, Appendix A01 to A29, Parts 2 and 2A, Aboriginal Consultation Summaries
- Technical Memo: Aboriginal Consultation

Draft versions of a number of the mitigation, management and monitoring plans required by the conditions were submitted to applicable government agencies and Aboriginal groups for comment on October 17, 2014.

Comments on these draft plans were received from various government agencies and Aboriginal groups during November and December 2014, and were considered in the revisions to these plans. BC Hydro's consideration of these comments is provided in the consideration tracking tables that accompany each plan.

On December 15, 2014, Treaty 8 Tribal Association (T8TA), on behalf of West Moberly, Saulteau and Prophet River First Nations, submitted to BC Hydro a letter in response to BC Hydro's request for comment on the Plans sent on October 17, 2014. The letter included several appendices, including the Joint Review Panel (JRP) Report and transcripts from the JRP hearings in December 2013 and January 2014. BC Hydro responded to the three First Nations on January 21, 2015 noting that the October 17 2014 request for comments on the plans was to provide an opportunity to the First Nations to submit to BC Hydro any information they wanted to provide in relation to the Plans. BC Hydro advised that it was aware of the information referred to in T8TA's letter when the plans were prepared, and advised that it was preparing a table setting out where any mitigation measures identified by representatives of the three First Nations during the hearings are considered in the draft plans and would provide that to the First Nations once complete. Accordingly BC Hydro's responses to those mitigation measures identified by the representatives of the three First Nations during the JRP hearings were provided to the EAO in a separate table by letter dated May 19, 2015. Aside from the December 15, 2014 letter, BC Hydro has not received further comments from these First

Nations. A letter of understanding dated April 30, 2015 respecting provision of capacity funding to support review of the plans was entered into by BC Hydro and Saulteau First Nations (on behalf of Saulteau, West Moberly and Prophet River First Nations).

New draft plans (i.e., Housing Plan and Housing Monitoring and Follow-Up Program, and the quarry/pit development plans) were provided to the entities identified in the EAC conditions on April 7, 2015. The Vegetation and Wildlife Mitigation and Monitoring Plan was revised based on comments received on the October 17, 2014 version and based on discussions with Environment Canada and the BC Ministry of Environment, and was re-submitted to applicable entities on April 7, 2015.

Comments on the revised plans were requested by May 11, 2015 to allow for review, consideration of comments and finalization of the plans 30 days prior to the commencement of construction.

Comments were received by this requested date from:

- Fort Nelson First Nation
- Ministry of Forests, Lands and Natural Resource Operations (FLNRO), and
- Métis Nation British Columbia.

The Peace River Regional District submitted their comments on the plan on May 14, 2015. FLNRO submitted additional comments on May 15, 2015, including comments from the BC Ministry of Environment.

BC Hydro considered the comments provided and prepared final plans. On May 19, 2015, BC Hydro submitted the following mitigation, management and monitoring plans to the BC Environmental Assessment Office (BC EAO) for review:

- Construction Environmental Management Plan
- Construction Safety Management Plan
- Fisheries and Aquatic Habitat Management Plan
- Vegetation and Wildlife Mitigation and Monitoring Plan
- Vegetation Clearing and Debris Management Plan
- Aboriginal Plant Use Mitigation Plan
- Aboriginal Training and Inclusion Plan
- Business Participation Plan
- Emergency Services Plan
- Healthcare Services Plan
- Labour and Training Plan
- Cultural Resources Mitigation Plan
- Heritage Resources Management Plan
- Housing Plan and Housing Monitoring and Follow-Up Program
- Wuthrich Quarry Development Plan
- West Pine Quarry Development Plan; and
- Del Rio Pit Development Plan.

The CEA Agency and Environment Canada submitted comments on the revised plan on May 22, 2015. These comments were considered and the final plans were revised accordingly and submitted on June 5, 2015 to the entities identified in the EAC conditions.

3.0 Regulatory Context

3.1 Transport of injured workers

The Occupational Health & Safety Regulation requires every employer to document procedures for the transportation of injured workers.

3.2 Fire Services

Municipal fire services provide fire response and other emergency services within their service area; however the majority of Project construction sites are outside of municipal fire service areas and will not be able to rely on municipal fire response.

The BC Wildfire Management Branch is responsible for managing wildfires on both Crown and private lands outside of organised areas such as municipalities and regional districts.

3.3 Provincial Emergency Management Coordination

Multi-agency hazard plans for B.C. are prepared and updated regularly by Emergency Management BC to ensure an effective strategy is in place to address many possible types of emergencies and disasters. These plans foster cooperation among multiple organizations focusing on public safety, infrastructure and property protection, and managing the aftermath of events.

3.4 Policing Services

The RCMP are contracted to provide law enforcement and policing services in northeastern BC, including within municipalities and the regional district.

3.5 BC Conservation Officer Service

The BC Conservation Officer Service is a public safety provider focussed on natural resource law enforcement and human wildlife conflicts prevention and response, with the responsibility to ensure compliance with a variety of provincial and federal statutes.

3.6 Search and Rescue Services

There are several local search and rescue organisations in the vicinity of the Project. As requested these organisations provide support to search and rescue activities throughout the Peace Region, including working alongside other emergency response service providers.

All of the service providers described above may need access to the Project construction sites to perform their duties.

4.0 Baseline Conditions

Please see Appendix A for a summary of relevant baseline conditions for community services.

5.0 Potential Effects of the Project

Please see Appendix A for a summary of the description of changes to emergency services as a result of the Project.

6.0 EAC Condition 43: Mitigation Measures

6.1 Contracting for Emergency Services

Prime contractors on Project construction sites are required to meet regulatory requirements, and must provide, as applicable to their work:

- Fire services, including written procedures established and followed by a fire department or industrial fire brigade;
- First aid; and
- Provisions for transportation of injured workers
- Emergency Response Plans

6.2 Communication and Coordination with Emergency Service Providers

BC Hydro will provide, as relevant and applicable, local emergency responders (RCMP, local search and rescue organisations, local authorities) and provincial coordinating agencies (BC Wildfire Management Branch, Emergency Management BC, BC Conservation Office, BC Ambulance Service) with prime contractor emergency response plans in place at Project construction sites and site perimeter security access protocols for emergency responders. These plans will be designed to integrate with existing emergency services communication systems and to help responders access and navigate through the construction sites.

Examples of information that will be shared include:

- Fire abatement plans
- Contractor emergency contact numbers
- Maps showing access points
- Workforce numbers and schedules
- Site access protocols for emergency responders

Opportunities to tour the site and to meet Project personnel will be provided to emergency response agencies.

6.3 Site Access Protocols

The site access protocols will be included in the Perimeter Security plan, which will be submitted to regulatory agencies when finalized. These protocols will be made available for all emergency services providers listed in provincial EAC Condition 43. Examples of information provided in these protocols include:

- current maps of the project construction areas and access roads
- primary and secondary access points to construction sites
- contact numbers for personnel on-site
- site emergency management plans and updates as plans amended

APPENDIX A. BASELINE CONDITIONS AND POTENTIAL PROJECT EFFECTS

1.0 Introduction

The interaction between the Project and Emergency Services would be expected during the Project construction phase, due to:

- Unexpected catastrophic event

2.0 Baseline conditions

The following baseline conditions were reported in the EIS (BC Hydro 2013a). It is recognized that baseline conditions are dynamic and change from time to time.

2.1 Baseline Police

There are five provincial forces and two municipal RCMP forces in the LAA. Municipal forces serve incorporated communities with populations over 5,000 people.

The Fort St. John municipal and provincial detachment has a full-time staff of 60 (44 officers and 16 municipal staff), three auxiliary constables, and two victim services workers, one full time and one part time. The detachment is responsible for Fort St. John, Taylor and the surrounding rural area north to the Sikanni Chief, west to the Halfway River, and east to the Alberta border (City of Fort St. John 2012a).

Hudson's Hope has a three-member detachment staffed with a corporal and two constables. The detachment covers the municipality and as far east as the Halfway River (District of Hudson's Hope 2012a).

The Dawson Creek municipal and provincial detachment has 28 officers and nine municipal staff (Fort St. John RCMP, Sergeant 2012 pers. comm.). Over 400 citizens serve as volunteers in various community policing programs (City of Dawson Creek 2011a). The Dawson Creek detachment services Dawson Creek, Pouce Coupe, Rolla, Arras, Farmington, and Kelly Lake. 8

The Chetwynd detachment has 10 officers, plus one officer from South Traffic Division who reports to Fort St. John. In addition, there are two staff members providing support services. The RCMP detachment in Tumbler Ridge maintains an office and detainment facilities, and has 5 officers.

2.2 Firefighting baseline

The Fort St. John Fire Department has 19 full-time employees and 13 volunteer firefighters serving a 70 km area around Fort St. John (City of Fort St. John 2011a). The department, which has six firefighting vehicles and a hazardous materials response unit, is the fire dispatch centre for the Fort St. John, Charlie Lake, Taylor, and Hudson's Hope fire departments (PRRD 2012a).

The Charlie Lake Fire Department serves the Charlie Lake area and is operated by PRRD. The department consists of 25 volunteer firefighters and two staff. The department has two pumper trucks, one tender unit, and two grass firefighting units (PRRD 2012c).

The Taylor Fire Department consists of the Fire Chief, 17 volunteer firefighters and one junior firefighter. The department has two pumper trucks, one tanker and one rescue truck (District of Taylor 2011).

The Hudson's Hope Fire and Rescue Service maintains two stations, two fire engines, one pumper/tanker, and one compressed air foam system Rescue Engine. The department is led by a full-time Chief and has 25 volunteer members who respond to fires within the District's Fire Protection District (District of Hudson's Hope 2011a).

The Chetwynd Volunteer Fire Department consists of 30 members including the Fire Chief. Equipment includes a pumper truck, ladder truck, initial response vehicle, and a rescue vehicle. The department responds to fires within the designated fire boundary of the District of Chetwynd (District of Chetwynd 2011a).

The Dawson Creek Fire Department provides firefighting and rescue services to the city, the Dawson Creek airport, and an 8 km rural area around the City. The department has a fire chief, a deputy fire chief, 16 full-time firefighters and 12 volunteer firefighters (City of Dawson Creek 2012d). It is equipped with six pieces of firefighting equipment including an aerial ladder-equipped fire truck. The Department is the fire dispatch centre for the Dawson Creek, Tumbler Ridge, Pouce Coupe, Moberly Lake, Tomslake and Arras fire departments (City of Dawson Creek 2011f).

The District of Tumbler Ridge has a full-time fire chief, one full-time firefighter, and a volunteer fire department with approximately 15 members. The Fire Hall is well equipped with emergency and fire protection vehicles. The fire department responds to medical emergencies, motor vehicle accidents, industrial accidents, gas leaks, and fires. It works in conjunction with the volunteer Tumbler Ridge Search and Rescue Society, supplying equipment and sharing the use of a squad bay (District of Tumbler Ridge 2009, 2012).

There is a mutual aid agreement with the fire departments of Fort St. John and Taylor to augment responses to larger emergencies (Dave Mitchell and Associates Ltd. 2011).

The fire departments of Fort St. John, Taylor, Hudson's Hope, Chetwynd, Dawson Creek, and Tumbler Ridge provide rescue and extraction services for motor vehicle accidents in the LAA.

In the event of a fire involving forest lands, the B.C. Ministry of Forests, Lands and Natural Resource Operations fire service would respond to fires in the rural PRRD areas. In the event of a provincial emergency, fire departments from nearby municipalities would become involved. The B.C. Ministry of Forests, Lands and Natural Resource Operations provides fire services from the Prince George Fire Centre. The Centre maintains close to 130 firefighters, comprising a 51-person seasonal initial attack crew, a 60-person crew, and an 18-person para-attack crew that parachutes crews and equipment into fires from fixed winged aircraft. Additional seasonal protection assistants are stationed in Chetwynd, Dawson Creek, and Fort St. John (B.C. Ministry of Forests, Lands and Natural Resource Operations 2011).

Baseline Ambulance services

Table 30.12 outlines the full-time and part-time ambulance attendants and key equipment stationed in each community

Table 30.12 Ambulance Staffing and Key Equipment in the LAA

Location	Full-time Staff	Part-time Staff	Key Equipment
Fort St. John	**4**	**22**	3 ambulances 1 multi-crash ambulance
Hudson's Hope	N/A	**5**	1 ambulance

Chetwynd	**1**	**13**	2 ambulances
Dawson Creek	**4**	**17**	3 ambulances

Sources: City of Dawson Creek (2011a); BC Ambulance, Superintendent (2012 pers. comm.); BC Ambulance service

3.0 Project related change in demand for Emergency Services

Emergency Services Mitigation:

- Provide on-site emergency services to minimize the need for community-based services. This will include:
    - Security services that support compliance and enforcement of all camp and construction policies relating to the terms of employment
    - Firefighting services for all project construction activities and work sites
    - First aid and medical transport for medical emergencies at the on-site accommodations and work sites
- Implement policies on safe living and work environment
- Implement traffic management plans
- Work with local fire departments to identify incremental demands on emergency rescue services, and provide funding to local governments for accident coverage during Project construction
- Work with the RCMP to identify incremental demands on policing services, and provide direct funding to the RCMP in the LAA to cover identified increases during Project construction
- Develop emergency service provider site access protocols to enable safe site access during construction and operations
- Work with emergency service providers to plan for and adjust to anticipated changes in resident population and new service demands by communicating workforce schedules, in-community population forecasts, housing plans, and on-site emergency services
- Develop and update Project emergency plans, including integration with existing BC Hydro Peace River generating facilities during Project construction