BC Hydro
Power smart

March 18, 2021

Mr. David M. Morton
Chair and CEO
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Mr. Morton:

RE: British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Site C Clean Energy Project
PUBLIC Annual Report No. 5 and Quarterly Progress Report No. 20

Today we are filing Site C Annual Progress Report No. 5 that covers the period of January 1 to December 31, 2020. As we have done in previous years, we are including the results for the quarter ending December 31, 2020.

The fifth full year of construction on the project can be described as a year that saw significant challenges for Site C.

Prior to the onset of the COVID-19 pandemic, BC Hydro had identified in previous progress reports dating back to 2019 that the project was already managing significant cost pressures, and these were being assessed, monitored and managed to the best extent possible. The global COVID-19 pandemic, along with the need for foundation enhancements on the right bank to deal with unanticipated geotechnical conditions, has significantly added to those cost pressures.

In my letter to the BCUC on July 31, 2020, I provided some initial details on how the pandemic was impacting the project after we had to scale back the workforce in camp by about 50 per cent in March 2020 to comply with provincial health orders. This was done to reduce the number of people staying in the onsite worker accommodation and limit the number of people travelling to and from the Peace region. The project focused its attention on the activities to achieve river diversion, along with other essential work such as keeping the site safe and meeting our regulatory commitments. We also stopped work for several months in a number of areas including the dam and core buttress, earthfill dam, and generating station.

While we were able to slowly start gradually ramping up the workforce through late spring and summer 2020, the project never came close to meeting its construction targets for the year. This scale back and subsequent work delays had significant impacts on the project schedule as we missed about 60 per cent of the important summer construction season for the dam and core buttress, earthfill dam, and generating station. No one could have foreseen the global COVID-19 pandemic when the Province decided in 2017 to continue with Site C and we recognize the pandemic

has created similar challenges for many other major infrastructure projects across British Columbia and the rest of Canada.

Before the onset of the pandemic in March 2020, the project was averaging about 1,800 people staying in camp each day. The project has not reached that number since then.

Last summer, we also began the process to re-baseline the project in light of the impacts of COVID-19 and the foundation enhancement measures. At that time, given concerns over the overall health of the project being classified as “at risk” in our last Annual Progress Report, the Province of B.C. appointed Mr. Peter Milburn to conduct an independent review of the project. BC Hydro supported the review by Mr. Milburn and the report has been received by Government.

The challenges facing the project are considerable and have resulted in significant challenges for our team. At the same time, over the past year, Site C reached its most important milestone to date when the Peace River was successfully diverted around the dam site on October 3, 2020. In addition to this important milestone, the project also completed and energized the Site C substation, and the first of two new transmission lines was placed into service. Both of these milestones occurred last fall and were completed ahead of schedule.

The COVID-19 pandemic remains a challenge for the project and BC Hydro continues to comply with the Industrial Projects Restart Order that was issued in late December. As we continue to work with a scaled-back workforce, our construction activities in the year ahead will focus on a number of work areas including:

- continuing construction on the main earthfill dam, approach channel, and remaining roller-compacted concrete buttresses;
- completing the downstream cofferdam before spring freshet. The upstream cofferdam was completed in February 2021;
- continuing construction of the powerhouse, intakes, penstocks and spillways;
- ramping up construction on the right bank foundation enhancements;
- finishing the second transmission line between Peace Canyon generating station and the Site C substation; and
- continuing construction of Highway 29 and a shoreline protection berm at Hudson’s Hope.

On February 26, 2021, the Province of B.C. announced an updated cost estimate for the Site C project of $16 billion. This includes a new expected in-service date of 2025, as a result of the delays and impacts of the pandemic. COVID-19 is the single largest contributor to the cost increase.

We support the Government's decision to proceed with the Site C project. It will help keep rates low and allow BC Hydro to continue delivering affordable, reliable and renewable energy to electrify our future economy. British Columbians will continue to pay among the lowest rates in North America, with cumulative rate increases below inflation.

The Province also released the independent review of the project by Mr. Milburn. His report included 17 recommendations aimed at improving project oversight and governance and strengthening Site C risk reporting and management. BC Hydro is committed to working with Government to implement these recommendations and this work is already underway.

In regard to the geotechnical challenges mentioned earlier, BC Hydro worked diligently through all of 2020 to remedy the issue on the project's right bank. Site C is being built for the next 100 years and ensuring a safe design has always been a key priority for the project. The project team engineers have identified a two-part solution to improve the stability of the right bank structures. The design is currently being optimized based on input from the Site C Technical Advisory Board and other external hydroelectric dam experts. These enhancements will extend the concrete foundation deeper into the bedrock and reduce the water pressures that can build up in the bedrock foundation.

Further, the Site C Project Assurance Board commissioned an independent due diligence review to assist it in its evaluation of the technical integrity of the proposed mitigation measures and to ensure they meet the Canadian Dam Association dam safety guidelines. A second report was also commissioned to review the design of the earthfill dam.

These reports concluded the right bank foundation enhancement solutions are appropriate and sound, and will make the right bank structures safe and serviceable over the long operating life of Site C. The report on the earthfill dam concluded this structure can be built safely and meet all Canadian Dam Association dam safety and reliability guidelines. Work to implement the right bank foundation enhancement measures is expected to begin later this year and be completed by the end of 2023.

We understand the challenges the project has encountered are serious. I would like to assure you that we are fully focused and committed to working with Government to enhance oversight and management of the project. The additional measures we are putting into place will result in improved management and transparency on the project.

BC Hydro acknowledges there are still some significant risks on the project that require ongoing management. We will continue to manage those risks with input from Mr. Milburn, EY Canada and the Site C Project Assurance Board, and report out on them to Government and the BCUC. We will also continue to work closely with our contractors, project unions, local communities, Indigenous peoples and health officials as they all play a key role in helping us deliver this project.

With Government's independent review now complete, BC Hydro will resume its regular filings of Site C progress reports with the BCUC. The next report, covering the period January 1 to March 31, 2021, will be filed by June 30, 2021.

BC Hydro is providing the public version of the report redacting commercially sensitive and contractor-specific information. BC Hydro seeks this confidential treatment pursuant to section 42 of the *Administrative Tribunals Act* and Part 4 of the BCUC's Rules of Practice and Procedure.

A confidential version of the Report is being filed with the BCUC only under separate cover.

Yours sincerely,

Chris O'Riley
President and Chief Executive Officer
BC Hydro

Enclosure

BC Hydro
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Site C Clean Energy Project

Annual Progress Report No. 5

(Combined with Quarterly Progress Report No. 20)

January 2020 to December 2020

PUBLIC

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1 Executive Summary

Site C will be the third dam and hydroelectric generating station on the Peace River in northeastern British Columbia (**B.C.**). Once complete, Site C will provide 1,100 megawatts of capacity, and produce about 5,100 gigawatt hours of energy per year – enough to power the equivalent of 450,000 homes per year in B.C.

After an extensive environmental assessment process, BC Hydro received an Environmental Assessment Certificate from the Province of British Columbia and an Environmental Decision Statement from the Government of Canada in October 2014. These approvals collectively contain more than 170 conditions and thousands of sub-conditions. In addition, BC Hydro is required to apply for multiple provincial permits, water licences, leaves to commence construction and federal authorizations related to the Project. In total, approximately 550 permits and authorizations will be required by the time the Project completes construction.

Construction on Site C began on July 27, 2015.

During the fifth full year of construction, the Project encountered several significant challenges that have materially impacted the Project cost and schedule, including the COVID-19 pandemic and the need for extensive right bank foundation enhancements.

The most significant challenge came as a result of the global COVID-19 pandemic, which caused an extended period of scaled-back work activity through the Project's important summer construction season, and incremental costs to complete work.

Because of the COVID-19 pandemic, on March 18, 2020, BC Hydro reduced the number of workers in the worker accommodation lodge, which resulted in fewer workers travelling to and from Fort St. John and the Peace Region. This impacted construction activities on Site C; the Project focused only on critical milestones including river diversion, and essential work, such as keeping the site safe and secure and meeting the Project's regulatory and environmental commitments.

While BC Hydro began to safely and gradually increase construction activities at the Site C dam site in May 2020, the Project missed approximately 60 per cent of the 2020 important summer construction season for the dam and core buttress, the earthfill dam, and the generating station.

Despite this, BC Hydro continued to prioritize the work required to meet major Project milestones, including river diversion in fall 2020. Between January and October, the Project completed all required steps in the process to prepare for one of the Project's biggest milestones: river diversion. The Peace River was successfully diverted around the Site C dam site on October 3, 2020.

Also at the dam site, the Site C substation was completed and energized ahead of schedule, and the first of two new transmission lines was placed into service in October 2020, ahead of schedule, linking the Site C substation with the Peace Canyon substation.

In the off-dam site work areas, including the realignment of Highway 29 and work on the transmission line and reservoir, construction activities were impacted due to the COVID-19 pandemic, but they continued to progress.

The second significant challenge to face the Project in 2020 was related to a geotechnical risk that materialized on the right bank of the Peace River. In late 2018, small movements had been measured on a bedding plane beneath the roller-compacted concrete buttress. Over the course of the next year, BC Hydro and the Technical Advisory Board conducted investigations and analysis of geological mapping and monitoring activities completed during Site C Project construction. By January 2020, ongoing investigations and analysis of geological mapping and monitoring activities completed during Site C Project construction identified that foundation enhancements would be required to increase the stability below the powerhouse, spillways and future dam core areas.

By March 2020, BC Hydro, in agreement with the Site C Technical Advisory Board, determined that significant foundation enhancements were required, and the cost of those enhancements would be significantly higher than previously expected.

Throughout the year, work focused on identifying a preferred right bank foundation enhancement solution. The solution was identified and is currently being optimized. The Technical Advisory Board have been actively involved in all aspects of the design and review of these proposed measures. The measures were also being reviewed by external hydroelectric dam experts.

Finally, prior to scaling back work due to COVID-19, the Project was already managing significant financial pressures, which were identified in the Site C 2019 Annual Progress Report No. 4 and Quarterly Progress Report No. 19. These pressures included amendments to the main civil works contract; additional labour resource requirements; First Nations treaty infringement claims and an injunction application; and increased costs associated with reservoir clearing, transmission line construction and highway re-alignment work.

As a result of the Site C 2019 Annual Progress Report No. 4 indicating the overall Project health being at risk due to the Project scope, schedule and cost indicators being at risk, in July 2020, Government appointed a special advisor, Peter Milburn, to complete a review of the Project that included a review and assessment of the governance and reporting structures that are in place on the Project. BC Hydro supported the review by Mr. Milburn and the report has been received by Government.

Pandemic-related costs and delays, the need for foundation enhancements and other challenges identified in Annual Progress Report No. 4 and Quarterly Progress Report No. 19 have presented additional pressures on the budget and schedule. While river diversion was achieved on schedule in October 2020, there is uncertainty with the Project's schedule and in-service date due to the COVID-19 pandemic. This uncertainty is primarily due to whether the delay to the work due to the pandemic can be recovered. The single largest cost pressure is due to the schedule and ongoing cost impacts from the COVID-19 pandemic. BC Hydro is going through a process of re-baselining the Project to review the cost and time required to complete the remaining work[1].

Throughout the reporting period, BC Hydro continued to uphold its commitments to the environment, local communities and Indigenous groups.

BC Hydro continued to secure the appropriate permits, authorizations and leaves to commence construction required for the Project. To date, 464 out of an anticipated 550 permits have been received, up from 350 at the end of 2019.

Environmental compliance on the Project remains high. BC Hydro completed almost 36,000 environmental compliance inspections in 2020, with a compliant or partial-compliant result of 99 per cent across all contractors and works areas.

[1] Refer to the cover letter from BC Hydro President and CEO, which is attached to Annual Report No. 5, for updated information on the project budget and schedule.

Work advanced in the areas of environmental monitoring and assessment as well as in the Project's fish, wildlife, habitat, vegetation management and heritage programs. Of significant note this year, the Project completed and commissioned the temporary upstream fish passage facility in advance of river diversion. The facility provides safe and efficient fish passage from the diversion tunnel outlet channel to upstream release locations during construction of the Project.

Throughout the year, BC Hydro worked to engage, build relationships and find solutions together on topics that are most important to the First Nations communities affected by Site C.

In summer 2020, the Province of British Columbia, BC Hydro and Prophet River First Nation announced they had reached two agreements resulting in the discontinuation of the Nation's civil claim against BC Hydro and the Province on alleged infringement of Treaty 8 rights related to the Site C Project. To date, seven agreements with First Nations have been publicly announced.

In collaboration with the Project's Cultural and Heritage Resources Committee, BC Hydro launched a new interactive travelling exhibit that tells the story of Indigenous peoples in the Peace Region.

BC Hydro also worked to advance economic opportunities for Indigenous groups through capacity-building and procurement opportunities. Since the beginning of the project, approximately $540 million in Site C procurement opportunities have been awarded to Indigenous-designated companies, up from $390 million in 2019.

Community engagement activities are an integral part of the Project; these activities also advanced throughout the year.

Throughout 2020, BC Hydro worked closely with local government, First Nations and health authority stakeholders to ensure worker and public safety while managing the COVID-19 pandemic at Site C. Through regular communication, these stakeholders were kept informed about pandemic-related updates on the Project.

In 2020, BC Hydro distributed $56,300 to seven non-profit organizations in the Peace Region, as part of the Generate Opportunities (**GO**) Fund. By the end of 2020, BC Hydro had distributed nearly $500,000 to 56 projects.

In addition, in 2020, 18 Peace Region agricultural projects received approximately $400,000 in funding through the BC Hydro Peace Agricultural Compensation Fund and as of December 31, 2020, nearly $600,000 had been distributed to 24 projects.

BC Hydro acknowledges there are still some risks on the project that require ongoing management and will continue to manage those risks with input and oversight from Mr. Milburn, EY Canada and the Site C Project Assurance Board. BC Hydro will continue to report out on project progress and risks to Government and the B.C. Utilities Commission. BC Hydro will also continue to work closely with our contractors, project unions, local communities, Indigenous groups and health officials, as they all play a key role in helping to deliver this project.

Annual Report Structure

Annual Progress Report No. 5 covers the period January 1 to December 31, 2020, including quarterly results for the quarter ended December 31, 2020 (Quarterly Progress Report No. 20).

In July 2020, with the release of Annual Progress Report No. 4 (January 1 to December 31, 2019) and Quarterly Progress Report No. 19 (quarter ending March 31, 2020), BC Hydro communicated that the Project had started the process of re-baselining the schedule and budget. In July 2020, Government announced that the Project would undergo an independent review led by a special advisor, Peter Milburn. Progress reporting was paused while the Government's independent review of the Project was underway. With the delivery of Mr. Milburn's report, BC Hydro is resuming progress reporting with a consolidated Annual Progress Report No. 5, which includes updates from previously unreported quarters ending June 30, 2020 and September 30, 2020.

2 Summary of Project – January to December 2020

2.1 Overview and General Project Status

During the fifth full year of construction, the Project experienced significant challenges due to the global COVID-19 pandemic, the requirement for foundation enhancements on the right bank, and previously identified cost pressures discussed in Annual Progress Report No. 4 (calendar year 2019) and Quarterly Progress Report No. 19 (quarter ending March 2021), which resulted in significant pressures to the Project's budget and schedule. The Project started a re-baseline of the budget and schedule in July 2020 at the same time an independent Project review was launched by Government.

Despite these challenges, the Project achieved significant construction milestones in 2020 including the diversion of the Peace River in October 2020.

This section contains a discussion of the major challenges and successes of 2020, as well as the Project Status Dashboard as of December 31, 2020.

2.1.1 COVID-19 Pandemic Impacted Planned 2020 Construction Season

During 2020, the global COVID-19 pandemic had a significant impact on safety, schedule, scope and cost for the Project.

Because of the COVID-19 pandemic, on March 18, 2020, BC Hydro reduced the number of workers in the worker accommodation lodge, which resulted in fewer workers travelling to and from Fort St. John and the Peace Region. This impacted construction activities at the dam site; the Project focused on those activities that were critical to achieve river diversion and essential services. In off-dam site work areas, construction activities were impacted due to COVID-19, but continued to progress.

This initial reduction in the workforce at the site, and the subsequent months of a lower-than-planned workforce at site, resulted in missing approximately 60 per cent

of the 2020 important summer construction season for the dam and core buttress, the earthfill dam, and the generating station and spillways. For example, the roller-compacted concrete for the dam/core buttress was expected to be complete in fall 2020. Due to the COVID-19 pandemic, this work was suspended in March 2020 and recommenced in July 2020, continuing through the summer; however, only 30 per cent of the original plan was achieved. For the generating station and spillways civil works, the powerhouse intakes and penstocks, and the spillway headworks construction activities were significantly impacted and by the end of December 2020 had not recovered to the original plan for 2020.

Prior to COVID-19, BC Hydro had anticipated that 2020 would be one of the Project's peak workforce years. For the most crucial work months for the Project (April to October), BC Hydro forecasted a total workforce of about 5,000 people for each of those months.

Due to the initial reduction in the workforce at site, and subsequent staged restart, these workforce numbers were not possible. In April 2020, for example, the Project saw a monthly workforce of only 3,029, a number not seen on the Project since June 2018.

BC Hydro slowly started ramping up the workforce on the Project in late May but did not reach 5,000 people working on the Project until October 2020.

Because of the scale back in work related to the COVID-19 pandemic, there is uncertainty with the Project's schedule and in-service date. This uncertainty is primarily due to whether the delay to the work due to the pandemic can be recovered.

The COVID-19 pandemic continued to impact construction plans throughout the first quarter in 2021. For example, the Industrial Projects Restart Order announced on December 29, 2020, limited the number of workers at five industrial camps in Northern B.C., including Site C, in early 2021.

Updates on the impacts of the COVID-19 pandemic on the Project and actions taken by BC Hydro are discussed in more detail throughout Annual Report No. 5.

2.1.2 Right Bank Foundation Risk Materialized, Substantial Mitigation Costs

BC Hydro conducted extensive engineering studies into the geology of the Site C Project area – including the dam site – for decades prior to beginning construction in 2015. These investigations and knowledge of geological features influenced the location and orientation of the Project's powerhouse and spillway, as well as the inclusion of a large roller-compacted concrete buttress to enhance the stability of the permanent structures on the project's right bank.

By January 2020, ongoing investigations and analysis of geological mapping and monitoring activities completed during Site C Project construction identified that foundation enhancements would be required to increase the stability below the powerhouse, spillways and future dam core areas. By March 2020, BC Hydro, in agreement with the Site C Technical Advisory Board, determined that significant foundation enhancements were required, and the cost of those enhancements would be significantly higher than previously expected.

Throughout the rest of 2020, BC Hydro worked to select and optimize the design of the enhancement measures and sought external validation from the Technical Advisory Board and international dam experts to confirm the solution was appropriate and safe.

In fall 2020, BC Hydro identified a two-part solution to improve the stability of the right bank structures. Engineering design work commenced through the balance of 2020 to design and optimize the solution. These enhancements will extend the concrete foundation deeper into the bedrock and reduce the water pressures that can build up in the bedrock foundation.

For more details, refer to section 3.2.2.

2.1.3 Other Financial Pressures Identified in 2019 and Project Re-Baseline

Prior to the escalation of the COVID-19 pandemic and since the current Project budget was approved in February 2018, the Project was managing significant financial pressures. These pressures were identified in the 2019 Site C Annual Progress Report No. 4, filed in July 2020, and are due to: contract amendments to the main civil works contract; additional labour resource requirements; First Nations treaty infringement claims and an injunction application; and increased costs associated with reservoir clearing, transmission line construction and highway re-alignment work. The single largest cost pressure is due to the schedule and ongoing cost impacts from the COVID-19 pandemic.

In July 2020, BC Hydro began the process of re-baselining the Project to determine the impacts the COVID-19 pandemic, the foundation enhancements, and other financial pressures would have to the Project's budget and schedule. This work continued for the balance of the year.

2.1.4 Independent Project Review by Peter Milburn

As a result of the Site C 2019 Annual Progress Report No. 4 and Quarterly Progress Report No. 19 indicating the overall project health being at risk due to the project scope, schedule and cost indicators being at risk, in July 2020, Government appointed a special advisor, Peter Milburn, former deputy minister of finance and secretary to Treasury Board, to complete a review of the Project that included an assessment of four key areas of the Project: governance and oversight, geotechnical issues, risk, and construction supervision and claims management.

Mr. Milburn's review team consisted of individuals with specialized expertise and experience with major capital projects. The review period covered January 2018 to October 2020. BC Hydro supported Mr. Milburn and his team throughout the review period.

2.1.5 Significant Construction Milestones Achieved in 2020

Despite the challenges discussed above, the Project achieved significant construction milestones in 2020.

Through 2020 and the COVID-19 pandemic, the Project continued to prioritize work to support preparations for diverting the Peace River in September 2020. As part of the lead up to diversion, engagement with key stakeholders and Indigenous groups was initiated and continued through 2020. On September 30, 2020, the diversion gates for the tunnel inlet structures were opened to commence the final activities for river diversion. BC Hydro then provided final consent to the contractor for final river closure of the Peace River and on October 3, 2020, completion of the rockfill berm occurred, officially commencing river diversion.

In addition, BC Hydro completed the temporary fish passage facility, completed and energized the Site C substation ahead of schedule, and placed the first of two new transmission lines into service ahead of schedule. For more detail on the significant Project milestones achieved in 2020, refer to sections 2.1.9 and 2.2.1.1.

2.1.6 Upholding Commitments to the Environment, Indigenous Groups and Local Communities

During the reporting period, BC Hydro continued to uphold its commitments to the environment, Indigenous groups and local communities.

BC Hydro continued to secure the appropriate permits, authorizations and leaves to commence construction required for the Project. To date, 464 out of an anticipated 550 permits have been received, up from 350 at the end of 2019.

Environmental compliance on the Project remains high. BC Hydro completed almost 36,000 environmental compliance inspections in 2020, with a compliant or partial-compliant result of 99 per cent across all contractors and works areas.

Work advanced in the areas of environmental monitoring and assessment as well as in the Project's fish, wildlife, habitat, vegetation management and heritage programs.

Of significant note this year, the Project completed and commissioned the temporary upstream fish passage facility in advance of river diversion. The facility provides safe and efficient fish passage from the diversion tunnel outlet channel to upstream release locations during construction of the Project.

Working closely with Indigenous groups, artificial eagle nest platforms and artificial snake dens were installed throughout the reporting period. Wildlife sweeps of the area for any potential Project interactions continued regularly, and appropriate mitigation or avoidance practices were established, such as snake fencing and warning signs, no work zones, and limiting hours or days of work with significant focus in the head pond area (the area directly upstream of the dam site).

A beaver radio telemetry study to track beavers affected by the winter 2020/21 headpond was completed. Wildlife and fisheries studies and monitoring continued to collect baseline usage data for comparison post dam construction.

Throughout the year, BC Hydro worked to engage, build relationships and find solutions together on topics that are most important to the First Nations communities affected by Site C.

In summer 2020, the Province of British Columbia, BC Hydro and Prophet River First Nation announced they had reached two agreements resulting in the discontinuation of the Nation’s civil claim against BC Hydro and the Province on alleged infringement of Treaty 8 rights related to the Site C Project.

Accommodation offers were originally extended to ten First Nations communities. Seven agreements have now been fully executed and are in various stages of implementation.

In collaboration with the Project’s Cultural and Heritage Resources Committee, BC Hydro launched a new interactive travelling exhibit that tells the story of Indigenous peoples in the Peace Region. The travelling exhibit is currently on

display at the Visitor's Centre in Fort St. John and will resume travel to communities once health orders regarding COVID-19 are lifted.

BC Hydro also worked to advance economic opportunities for Indigenous groups through capacity-building and procurement opportunities. Since the beginning of the Project, approximately $540 million in Site C procurement opportunities have been awarded to Indigenous-designated companies, up from $390 million in 2019.

In December 2020, 347 Indigenous people were working on the Site C Project, compared to 336 in December 2019. The Project high for the year was reached in October 2020, with 412 Indigenous workers.

Community engagement activities are an integral part of the Project; these activities also advanced throughout the year.

Throughout 2020, BC Hydro worked closely with local government, First Nations and health authority stakeholders to ensure worker and public safety while managing the COVID-19 pandemic at Site C. Through regular communication, these stakeholders were kept informed about pandemic-related updates on the Project.

In 2020, BC Hydro distributed $56,300 to seven non-profit organizations in the Peace Region, as part of the GO Fund. Created in 2016, the $800,000 GO Fund is being distributed quarterly over an eight-year period to non-profit organizations that provide services to vulnerable populations including children, families and seniors. By the end of 2020, BC Hydro had distributed nearly $500,000 to 56 projects.

Overall agricultural production in the Peace Region is expected to benefit from Site C Project mitigation measures, including a $20 million agricultural compensation fund that will support agricultural programs and projects such as irrigation and drainage improvements. This fund is governed by a regional decision-making board, responsible for overseeing the management and disbursement of the fund.

In 2020, 18 Peace Region agricultural projects received approximately $400,000 in funding through the BC Hydro Peace Agricultural Compensation Fund and as of December 31, 2020, nearly $600,000 had been distributed to 24 projects.

2.1.7 Project Status Dashboard for 2020

BC Hydro, with direction from the Project Assurance Board, is committed to delivering the Site C Project without compromising on safety, scope, and quality. To report on Project status, BC Hydro uses a dashboard system, where key Site C Project areas are classified as red (at risk), amber (moderate issues) or green (on target).

The Project Status Dashboard, as of December 31, 2020, is provided in Table 1 below.

In the dashboard, BC Hydro has classified the overall health of the Project as "red", or at risk, specifically regarding schedule, scope and budget.

This is primarily due to the increased cost and schedule pressures resulting from the global COVID-19 pandemic; the need for enhancements to the foundations of structures on the right bank; and other financial pressures identified in 2019 and 2020. The single largest cost pressure is due to the schedule and ongoing cost impacts from the COVID-19 pandemic.

Table 1 Project Status Dashboard

● On Target ● Moderate Issues ● At Risk

Status as of:		December 2020
Overall Project Health	●	Overall Project health is red due to significant scope, schedule and cost pressures. Due to the COVID-19 pandemic and the need to scale back the workforce in the worker accommodation lodge and then re-start work on the dam site, the Project's first power and in-service date have been impacted. Project scope, schedule and cost are under pressure due to the COVID-19 pandemic and the requirement to implement enhancements to the foundations of the structures on the right bank. In July 2020, BC Hydro started the process of updating the Project cost and schedule. The Project achieved diversion of the Peace River in October 2020, completed the temporary fish passage facility, completed and energized the Site C substation and placed the first of two new transmission lines into service.
Safety	●	Management of COVID-19 transmission risk for Site C workers and local communities was a major focus in 2020, and will continue to be a priority for 2021. The Project had 31 confirmed cases during the year, and prepared for an expected wave in early January 2021 as workers return from the holidays. About 65 per cent of the positive cases came from British Columbia, with the majority from the Northern Health region. About 77 per cent of the cases were attributed to community transmission as the most likely source. The Project experienced three contained clusters, accounting for 14 of the 31 positive cases and most of the worker isolations. The Project successfully and safely completed diversion of the Peace River in October 2020. Safety performance in 2020 (BC Hydro including all contractors, for all work sites) was consistent with 2019 results, with 21 serious safety incidents and a significant improvement in WorkSafeBC Regulatory Inspection 'clean sheets'. This year there were less serious safety incidents related to earthworks and tunnel building activities, with an increase in high risk crane contacts and fall protection violations – reflecting the shift in work to construction of the generating facilities and earthfill dam.
Scope	●	The review of the geological and instrumentation information on the right bank was completed by the end of 2019, indicating that structural measures were likely required to improve the foundations. By January 2020, ongoing investigations and analysis of geological mapping and monitoring activities completed during Site C Project construction identified that foundation enhancements would be required to increase the stability below the powerhouse, spillways and future dam core areas. By March 2020, BC Hydro, in agreement with the Site C Technical Advisory Board, determined that significant foundation enhancements were required, and the cost of those enhancements would be significantly higher than previously expected. Throughout the rest of 2020, BC Hydro worked to select and optimize the design of the enhancement measures and sought external validation from the Technical Advisory Board and international dam experts to confirm the solution was appropriate and safe.
Schedule	●	Due to the COVID-19 pandemic and the reduction of workers in the worker accommodation lodge, construction activities were scaled back and later re-started on the dam site. The Project's first power and in-service date have been impacted. In July 2020, BC Hydro started the process of updating the Project cost and schedule, working closely with the Independent Advisor, EY Canada.
Cost	●	Prior to scaling back work due to COVID-19, the Project was managing significant financial pressures. In addition, cost pressures related to the COVID-19 pandemic, foundation enhancements and related activities were identified, and are being assessed, monitored and managed to the extent possible. In July 2020, BC Hydro started the process of updating the Project cost and schedule, working closely with the Independent Advisor, EY Canada.

Status as of:		December 2020
Quality	●	The overall quality rating for the Project continued to be good during the reporting period, indicating that the work generally conforms to the requirements of the drawings and specifications. For the main civil works, BC Hydro focused its quality assurance efforts on the materials processing, placement and testing for the cofferdams. For the generating station and spillways civil works, BC Hydro focused its quality assurance efforts on the wet curing, thermal control and strength of concrete for the generation station, spillways and intake structures. For offsite manufacturing, BC Hydro continues weekly meetings with the quality management teams of key suppliers in COVID-19 affected areas to discuss impacts, plan upcoming inspections and to coordinate with our local quality assurance representatives to ensure quality requirements are satisfied prior to components being shipped.
Regulatory, Permits and Tenures	●	Permits are on track and are meeting schedule requirements. To date, the Project has obtained 84 per cent of its required authorizations and remaining authorizations are anticipated to be received as required to meet the overall Project schedule needs. Environmental Assessment Certificate Amendment approvals are progressing well, with all requested amendments approved to date.
Environment	●	Significant efforts were focused on reducing the potential for wildlife impact during river diversion within the potential headpond area. In partnership with Indigenous representatives, the headpond area was assessed and winter denning sites removed prior to denning. Environment Canada initiated an investigation on October 10, 2018 with regards to a rainfall event in September 2018. BC Hydro has subsequently increased the system capacity along with other actions to reduce the potential of future similar events. This investigation is still ongoing. Focus remains on minimizing sediment and erosion across the dam site, care of water, hydrocarbon management, wildlife attractant management and invasive weed control.
Procurement	●	The balance of plant procurement was terminated as a result of BC Hydro not being able to reach an agreement on a contract with the preferred proponent. BC Hydro is proceeding with procuring the balance of plant work through six procurement packages in 2021. All major Highway 29 procurements have been completed.
Indigenous Relations	●	Seven of 10 agreements are fully executed and in implementation. West Moberly First Nations withdrew from confidential discussions to seek alternatives to litigation related to Site C in August 2019 and filed an amended Notice of Civil Claim in September 2019. British Columbia and BC Hydro concluded an agreement with Prophet River First Nation in 2020.
Litigation	●	The treaty infringement claim filed by West Moberly First Nations in January 2018 remains active. In February 2019, the Province of British Columbia, BC Hydro, West Moberly First Nations and Prophet River First Nation agreed to enter into confidential discussions to seek alternatives to litigation related to Site C. West Moberly First Nations withdrew from the discussions in August 2019 and filed an amended Notice of Civil Claim in September 2019, which, among other things, expands their original treaty infringement action, shifting the focus to all three Peace River facilities, not just Site C, and their alleged cumulative impacts. In August 2020, the Province announced that BC Hydro, the Province and Prophet River First Nation had reached two agreements on the Site C Project, and a Notice of Discontinuance of Prophet River First Nation's civil claim was filed in court on November 19, 2020.
Stakeholder Engagement	●	BC Hydro continues to work with the communities, regional district and stakeholder groups on the implementation of various community agreements. In 2020, BC Hydro initiated recurring COVID-19 updates (through calls and emails) with local community representatives and Northern Health, and launched numerous Project update videos and other materials. Additionally, BC Hydro continues to receive, respond to and resolve Project-related complaints.

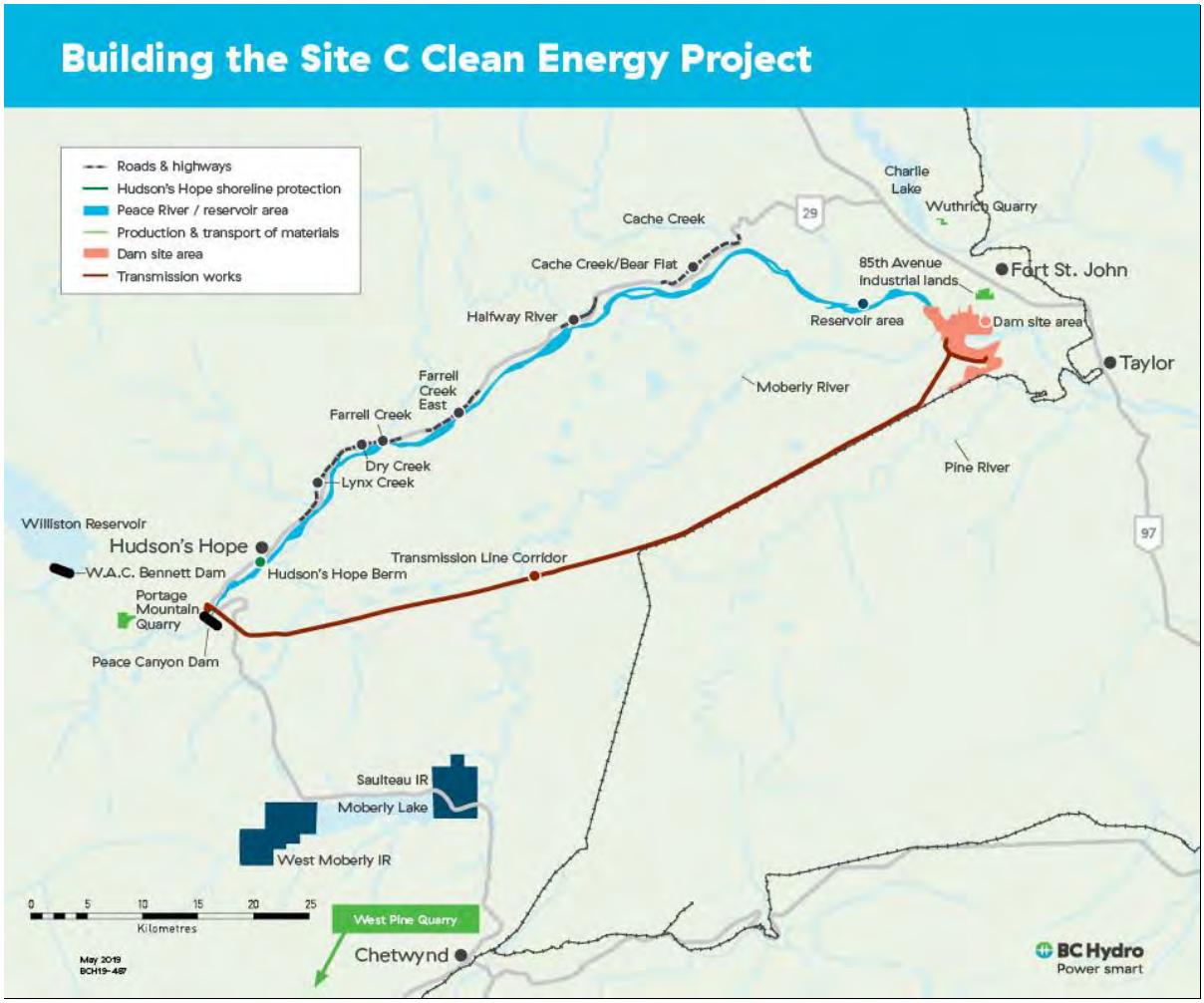
2.1.8 Work Completed Since Project Commencement in 2015

Construction began on July 27, 2015 and is ongoing. Since the commencement of construction, the following work has been completed:

- Site preparation, including on-site access roads;
- Clearing of the left and right banks at the dam site and clearing of the lower reservoir area;
- Cofferdams on the left and right banks of the river;
- Construction of the worker accommodation lodge and Peace River construction bridge;
- Powerhouse excavation, and placement of 414,000 cubic metres of roller-compacted concrete in the powerhouse buttress;
- Spillways excavation, and the placement of 586,000 cubic metres of roller-compacted concrete in the spillways buttress;
- Construction of dam site access public roads;
- Construction of the Site C viewpoint;
- Excavation of the diversion tunnel inlet (upstream) and outlet (downstream) portals, allowing for the commencement of diversion tunnel excavations;
- Excavation of the right bank drainage tunnel, which will be used to monitor and drain the water from within the foundation under the powerhouse, spillways and dam buttresses and will eventually be connected to services within the powerhouse;
- Completion of two river diversion tunnels, which are used to reroute a short section of the Peace River to allow for the construction of the main earthfill dam;
- Construction and commissioning of the temporary fish passage facility;

- Diversion of the Peace River around the Site C construction site;
- Completion of the Peace Canyon 500 kV gas-insulated switchgear expansion to enable connection of Site C to the BC Hydro electrical system;
- The completion of the Site C substation and first of two new 500kV transmission lines;
- Clearing activities in the lower reservoir;
- Fish habitat enhancements downstream of the dam site; and
- The completion of 50 affordable housing units in Fort St. John.

Figure 1 Site C Project Components



2.1.9 Significant Project Updates in 2020

Significant Project updates that occurred between January 1 and December 31, 2020 include the following:

- Throughout 2020, work was carried out to select and optimize the design of the foundation enhancement measures to satisfy all safety, serviceability and reliability guidelines in accordance with the Canadian Dam Association (**CDA**), which ensures the safety of dams in Canada, as well as international best practices. A preferred solution has been identified and is currently being optimized. Independent due diligence reviews of the preferred solution are underway. Refer to section 3.2.2 for more information.
- In January 2020, construction of the Highway 29 realignment at Halfway River began. The work includes 3.7 kilometres of new two-lane highway and the construction of a new one-kilometre-long bridge crossing the Halfway River. Refer to section 2.2.1.6 for more information.
- In January 2020, excavation of the Peace River diversion tunnels was completed. Refer to section 2.2.1.1 for more information.
- BC Hydro's fifth Indigenous Employment and Training Information session was held in February 2020. Refer to section 2.8.3 for more information.
- On March 6, 2020, a contract amendment was executed to the main civil works contract, retroactive to December 23, 2019, increasing the value of the contract by up to $332 million over the duration of the contract. Refer to sections 2.2.1.1 and 2.10.4.1 for further information.
- Because of the COVID-19 pandemic, on March 18, 2020, BC Hydro reduced the number of workers in the worker accommodation lodge, which resulted in fewer workers travelling to and from Fort St. John and the Peace Region. This impacted construction activities on Site C. BC Hydro worked with Project contractors and unions to safely scale back certain construction activities at the

dam site in order to focus on essential work and critical milestones, while off dam site activities were impacted but able to continue. On the dam site, the Project prioritized work required to achieve river diversion in fall 2020. Other essential work, such as keeping the site safe and secure and meeting the Project's regulatory and environmental commitments, also continued as planned. Throughout the year, BC Hydro implemented and adjusted many safety measures to respond to the COVID-19 pandemic. The impacts of COVID-19 are referenced throughout this report.

- In March 2020, construction of an embankment at Cache Creek East began as part of the Highway 29 realignment and was completed in August 2020. Refer to section 2.2.1.6 for more information.
- In March 2020, work was completed on the debris management structure across the Moberly River. These piles are in addition to debris booms that are now in place on the Moberly and Peace Rivers and will protect the dam site from debris until the reservoir is filled. Refer to section 2.2.1.1 for more information.
- In May 2020, the two Peace River diversion tunnels were completed. Four gate structures, located at the upstream and downstream entrances of both tunnels, were also completed. Refer to section 2.2.1.1 for more information.
- The Site C worker accommodation lodge expansion, which provided an additional 450 beds, commenced construction in February 2020 and was completed on schedule on May 2020. Refer to section 2.2.1.1 for more information.
- Blasting and riprap production resumed at the Portage Mountain Quarry starting in May 2020. First deliveries of riprap to Highway 29 construction contractors began in June 2020. Refer to section 2.2.1.6 for more information.

- In May, BC Hydro began to safely increase construction activities at the Site C dam site in a gradual phased approach, based on provincial health COVID-19 guidelines for industrial camps. BC Hydro worked with Project contractors and unions to ramp up construction activities, with the first increase in work focused on restarting some of the main civil works on the earthfill dam and roller-compacted concrete dam buttress.
- In June 2020, BC Hydro set up a seasonal portage program between the Halfway River boat launch and the Peace Island Park boat launch, operating from June 15 to September 15, 2020. Refer to section 2.9.2.1 for more information.
- In June 2020, the first of two debris booms was installed across the Peace River, about three kilometres upstream of the Site C dam site. Refer to section 2.2.1.1 for more information.
- In July 2020, work began to re-baseline the Project to determine the impacts on cost and schedule from COVID-19 and other cost pressures. This work continued for the balance of the year.
- In July 2020, Government appointed a special advisor, Peter Milburn, former deputy minister of finance and secretary to Treasury Board, to complete a review of the Project that included an assessment of four key areas of the Project: governance and oversight, geotechnical issues, risk, and construction supervision and claims management.
- In August 2020, the powerhouse bridge cranes were commissioned. Refer to section 2.2.1.2 for more information.
- In August 2020, the balance of plant procurement was terminated as a result of BC Hydro not being able to reach agreement on a contract with the preferred proponent. The Project is proceeding with procuring the balance of plant work

through six procurement packages in 2021. Refer to sections 2.2.1.3 and 2.10.1 for more information.

- The Highway 29 Lynx Creek East embankment was completed in August 2020. Refer to section 2.2.1.6 for more information.
- Commissioning of the temporary fish passage facility was completed in September 2020. Refer to section 2.2.1.1 for more information.
- In September 2020, the river diversion process began with the removal of the inlet and outlet cofferdams, allowing the Peace River to reach the diversion tunnel gates. On September 30, 2020, the stop logs were removed before the gates were opened, allowing the Peace River to begin flowing through the tunnels. With the completion of the rockfill berm across the main channel of the river, the Peace River was successfully diverted around the Site C dam site on October 3, 2020. Refer to section 2.2.1.1 for more information.
- On October 9, 2020, the Site C substation and the first of two transmission lines connecting Site C to the Peace Canyon substation were energized ahead of schedule. Refer to section 2.2.1.5 for more information.
- In October 2020, in collaboration with the Project's Cultural and Heritage Resources Committee, BC Hydro launched a new interactive travelling exhibit that tells the story of Indigenous peoples in the Peace Region. Refer to section 3.4 for more information.
- On December 29, 2020 the Provincial Health Officer posted the Industrial Projects Restart Order limiting the number of workers at five industrial camps in Northern B.C., including Site C.
- As of December 31, 2020, approximately $540 million in Site C procurement opportunities have been awarded to Indigenous-designated companies.
- In 2020, BC Hydro distributed $56,300 to seven non-profit organizations in the Peace Region through its GO Fund, an $800,000 fund distributed over an

eight-year period to organizations that provide services to vulnerable populations including children, families and seniors. Refer to section 2.9.1 for more information.

- In 2020, Northern Development Initiative Trust announced that 18 Peace Region agricultural projects received approximately $400,000 in funding through the BC Hydro Peace Agricultural Compensation Fund. Refer to section 2.7.4 for more information.

2.2 Construction and Engineering Major Accomplishments, Challenges, and Work Completed

2.2.1 Construction

As discussed in section 3.1 Overview and General Project Status, the COVID-19 pandemic had a material impact on dam site construction activities in 2020. The important summer 2020 construction season was significantly impacted for the main civil works and generating station and spillways contractors as discussed further below. For off-dam site work activities, work was impacted, but to a lesser degree than for on-dam site activities, and all off-dam site work fronts have continued to progress and generally remain on schedule.

For the foundation enhancements, the majority of the activities were focused on the investigation and analysis of alternatives, and the identification of the preferred solution, as described in section 3.2.2.

In July 2020, BC Hydro began the process of re-baselining the Project budget and schedule and continues to work closely with impacted contractors to understand the impacts of COVID-19.

An updated construction schedule will be provided in a future progress report once the re-baselining process is finalized.

2.2.1.1 Main Civil Works

The scope of the main civil works contract includes the construction of the following major components:

- Diversion works, including two concrete-lined, 10.8-metre-diameter tunnels. Tunnel No. 1 is 700 metres in length and Tunnel No. 2 is 790 metres in length;
- Diversion tunnel inlet and outlet portals, and approach channels;
- Excavation and bank stabilization;
- Relocation of surplus excavated materials (including management of discharges);
- Dams and cofferdams (including a zoned earth embankment dam 1,050 metres long and 60 metres above the present riverbed, and stage 1 and 2 cofferdams);
- Roller-compacted concrete (including a powerhouse, spillways and dam buttress approximately 800 metres long made up of approximately 1.7 million cubic metres of concrete); and
- Haul roads.

A contract amendment was executed on March 6, 2020 to the main civil works contract that is retroactive to December 23, 2019, resulting in an increase in the contract value of up to $332 million over the duration of the contract, including investments in equipment to reduce the schedule risk for dam construction and a series of performance-based at-risk incentives for the contractor with the objective of maintaining schedule for diversion and first power. While the amendment supported the Project's ability to achieve river diversion in 2020, it also contributed to the Project's significant cost pressures.

In the beginning of 2020, significant progress was achieved on the main civil works construction activities required prior to river diversion. Because of the COVID-19 pandemic, on March 18, 2020, BC Hydro reduced the number of workers in the

worker accommodation lodge. This impacted construction activities; the Project stopped non-critical work, including construction of the dam and preparatory work for placement of roller-compacted concrete in the dam buttress, while continuing to progress critical activities related to achieving river diversion in fall 2020. Essential services continued, including care of water, repairs to the right bank drainage tunnel and left bank water control measures.

In May 2020, the main civil works contractor started a gradual phased approach to re-starting the remaining non-critical river diversion works. The first increase in work focused on restarting some of the work on the earthfill dam foundation and roller-compacted concrete dam buttress foundations. As of December 2020, most of the key planned main civil work activities had restarted with the exception of the earthfill dam fill placement, as the placement of these materials requires warmer temperatures; this work is now expected to be commence in 2021.

Construction activities took place on the left bank, right bank and other areas as described below.

Left Bank

In preparation for river diversion and construction of the earthfill dam, the significant work activities on the left bank included:

- Stabilize the slope with a mass excavation associated with construction of the dam (complete);
- Stabilize the diversion tunnel inlet and outlet portals (complete);
- Excavate two diversion tunnels (complete);
- Construct concrete diversion tunnel linings (complete);
- Construct inlet and outlet structures at the ends of the diversion tunnels to house the hydraulic gates (complete); and
- Construct the approach channels (complete).

The activities currently underway or completed as of December 31, 2020 on the left bank include:

Left Bank Drainage Adit

Work on the left bank drainage adit was temporarily suspended as of March 18, 2020 as a result of the ramp down of non-essential and non-diversion work areas due to the necessary reduction in the number of workers in the worker accommodation lodge because of the COVID-19 pandemic. Work on the left bank drainage adit recommenced at the end of June 2020. As of December 31, 2020, approximately 407 metres of the 454-metre-long left bank drainage adit was complete. Subsequent to the reporting period, excavation and lining of the left bank drainage adit was completed in February 2021.

Diversion Facilities – Structures

During 2020, significant work was completed on the various diversion structures. On September 30, 2020, the diversion gates for the inlet structures were opened to commence the final activities for river diversion.

The scopes of work that were completed for the two diversion tunnels in 2020 include:

- Placement of structural concrete for the inlet and outlet towers (compete);
- Installation of inlet gates and guides (complete);
- Completion of the commissioning of the inlet gates (complete); and
- Installation of outlet guides and stoplogs (complete).

Diversion Facilities – Approach Channels

The purpose of the approach channels is to direct water towards the inlet structures and away from the outlet structures. They consist of concrete channel slabs directly in front of the inlet and outlet structures and riprap material surrounding the channel

slabs. Prior to removal of the inlet and outlet cofferdams, completion of the approach channels was required.

The removal of the inlet and outlet cofferdams was completed in September 2020 prior to opening the diversion tunnel inlet gates in advance of diversion. The removal of the cofferdams was the final step for the completion of the approach channels.

Diversion Facilities – Tunnels

The two diversion tunnels consist of 56 concrete lining segments for Tunnel No. 1 and 64 segments for Tunnel No. 2. Completion of the concrete liners was completed in 2020 and final Certificates of Compliance were issued for both tunnels by the Engineers of Record on August 11, 2020.

Temporary Fish Passage

The temporary fish passage facility is a trap-and-haul facility located on the right bank of the Peace River diversion tunnel outlet channel and provides safe and efficient fish passage from the outlet channel to upstream release locations during construction of the Project. The construction scope for the temporary fish passage facility consisted of a sorting facility, pump station, pool modules (fish ladder) and entrance pool, including concrete placements, mechanical works, electrical works and commissioning. Commissioning of the temporary fish passage was completed on time in September 2020. Following the operational season, the facility was winterized in October 2020 and will be recommissioned annually following spring freshet for the duration of the diversion of the Peace River. After reservoir inundation, fish passage operations will be transferred to the permanent fish passage facility that will be constructed.

Core Trench Excavation (Left Bank)

Prior to March 18, 2020, the left bank core trench bulk excavation was progressing well, with rock slope protection on the east and west slopes of the left abutment nearing completion. Due to the necessary reduction in the number of workers in the

worker accommodation lodge because of the COVID-19 pandemic, on March 18, 2020, work on the core trench excavations was halted as the focus of activities were redirected to diversion-focused work. Prior to halting the work, all open drill holes were grouted, and the work areas were closed. On September 29, 2020, the remaining excavation on the left bank core trench recommenced and the work was completed on November 22, 2020. Grouting works recommenced on September 4, 2020 and are forecast to continue in 2021.

Right Bank

The right bank scope of work includes the excavation of the powerhouse, spillways and dam, and placing roller-compacted concrete for the foundations to support the powerhouse, dam and spillway structures.

The activities currently underway or completed in 2020 on the right bank include:

Right Bank Drainage Tunnel

Remediation work is continuing in the right bank drainage tunnel. In 2019, some shotcrete on the wall of the tunnel was damaged, which limited access into the tunnel. Work advanced in 2020 to areas in need of repair and as remediation was completed and the final shotcrete layer was placed in the tunnel, any non-functioning instruments were being repaired. As of December 31, 2020, 77 per cent of the tunnel was remediated, and 74 per cent had been completed to its final state. The contractor is continuing to progress the work to remediate the tunnel.

Aggregate Production

Seasonal aggregate production was scheduled to recommence in spring 2020. Due to the necessary reduction in the number of workers in the worker accommodation lodge because of the COVID-19 pandemic, work was suspended in March 2020 and re-started in July 2020.

Core Trench Excavation (Right Bank)

Consolidation and curtain grouting of the right bank was completed in the lower core trench area in March 2020. Grouting was progressing well up the right bank slope prior to the work being suspended due to the necessary reduction in the number of workers in the worker accommodation lodge because of the COVID-19 pandemic. In July 2020, work recommenced on the grouting on the right bank slope and continued through the summer 2020 in advance of roller-compacted concrete placement. As of December 31, 2020, work continues with a forecast to be completed in the winter 2021.

Spillway Roller-Compacted Concrete (Upper Spillway and Dam/Core Buttress)

Roller-compacted concrete for the dam/core buttress was expected to be complete in fall 2020. Due to the necessary reduction in the number of workers in the worker accommodation lodge because of the COVID-19 pandemic, this work was suspended in March 2020 and recommenced in July 2020, continuing through the summer; however, only 30 per cent of the original planned placements of roller-compacted concrete for the dam/core buttress was achieved. Approximately 80 per cent of the total roller-compacted concrete to be placed for the entire Site C Project was completed by December 31, 2020. The remaining roller-compacted concrete will be placed in the 2021 season. Sufficient roller-compacted concrete was placed to support early placement of the dam material in 2021.

River Diversion

Through 2020, the Project continued to prioritize work to support preparations for diverting the Peace River in September 2020. As a part of this work, plans for operational and construction management, dam safety, emergency management, public safety, site safety, environmental, and commissioning were developed and executed. As part of the lead up to diversion, engagement with key stakeholders and Indigenous groups was initiated and continued through 2020. On September 30, 2020, the diversion gates for the tunnel inlet structures were opened

to commence the final activities for river diversion. BC Hydro then provided final consent to the contractor for final river closure of the Peace River and on October 3, 2020, completion of the rockfill berm occurred, officially commencing river diversion.

Activities to support diversion of the Peace River will continue until reservoir filling is complete, at which time the diversion facilities will be permanently de-commissioned.

Stage 2 Cofferdam Construction[2]

The stage 2 cofferdams were constructed through 2020. As part of the river diversion process, early encroachment of the upstream and downstream cofferdams began during the summer 2020, and this work continued to advance, dependent on river flows, leading up to final river closure. Following completion of the rockfill berm on October 3, 2020, construction of the cofferdams continued through winter 2020. Subsequent to the reporting period, the upstream cofferdam was completed in mid-February 2021, approximately two months ahead of schedule. The downstream cofferdam interlocking steel pile wall was completed in January 2021 and the remaining earthfill portion is on track to be completed on schedule.

Debris management

The design, procurement and construction of four debris retention structures on the Moberly and Peace rivers started in early 2020. Works include piles on the Moberly River and debris booms on the Moberly and Peace rivers. These structures provide coverage for all headpond elevations to capture and prevent debris from entering the diversion tunnels. The piles on the Moberly River were completed in 2020, and construction continued throughout 2020 on the three debris booms.

1. Piles located on the Moberly River

[2] This section was previously referred to as ‘In River Work’.

- The construction of 44 steel, concrete-reinforced piles on the Moberly River was completed in March 2020 by the generating station and spillways contractor. The piles were required to support management of debris while the Peace River was being diverted. Further, the piles collect debris when the headpond elevations are low.

2. Peace River debris boom located furthest upstream of the dam site

   - The construction of the first debris boom on the Peace River was constructed by the generating station and spillways contractor and completed in June 2020. This boom is located furthest upstream of the dam site. With this work complete, boat traffic on the Peace River at Site C was permanently closed.
   - In early July 2020, two large rain events occurred within a one-week period and a large volume of debris was collected on the boom. The debris boom functioned as designed and debris clearing on the upstream Peace River debris boom continued throughout 2020.

3. Moberly River and Peace River debris booms located closest to the dam site

   - The debris boom on the Moberly River and the second debris boom on the Peace River located closest to the dam site were constructed by the main civil works contractor.
   - Two of the six anchors for the debris boom on the Moberly River were completed in June 2020. Due to continued high flows on the Moberly River in June and July 2020, access was restricted to the work area and work was stopped. Work on the boom anchor construction recommenced in July 2020 and was completed in October 2020.
   - Construction on the second debris boom located on the Peace River was completed in August 2020.

Remaining debris on the Moberly Piles and upstream Peace River boom was removed in November 2020, and the Peace River debris boom was taken out of service for the winter season in December 2020.

Other Areas

Conveyor Belt System

Over the summer of 2020, the main civil works contractor conducted trials of the five-kilometre long electric conveyor belt system, which runs from the 85th Avenue Industrial Lands to the dam site, and identified opportunities to increase efficiencies. The contractor is in the process of securing and installing these improvements, including an upgraded feeder system.

Earthfill Dam

Work was planned to recommence material placements for the earthfill dam in spring 2020, when temperatures are conducive to earthfill material placement; however, due to the necessary reduction in the number of workers in the worker accommodation lodge because of the COVID-19 pandemic the start date was impacted, as the work areas associated with the earthfill dam construction were scaled down. Due to the ramp down, placement of the material in the 2020 season did not occur and is now scheduled to commence in 2021.

Worker Accommodation

The Site C worker accommodation lodge was originally designed to house 1,600 workers, with services and utilities to accommodate a total capacity of 2,200 plus the lodge operations staff. In 2018, various scenarios were modelled to forecast expected requirements for bed nights, and these indicated peaks in camp capacity greater than 1,600 beds occurring in 2020, 2021 and 2022, based on forecasted work volumes. In 2019, the first phase of a two-phase expansion was completed which added 150 beds. The second phase of the camp expansion commenced construction in February 2020 and was completed on schedule in

May 2020, adding 450 beds. The total capacity of the worker accommodation, including camp operations staff, is now 2,350.

Since January 2020, BC Hydro and the camp operator have implemented several measures to protect employees, contractors and facilities as a result of the COVID-19 pandemic. Changes were made at the worker accommodation lodge to increase cleaning and physical distancing (e.g., eliminating self-service stations in the dining room and setting up tables to help workers adhere to physical distancing guidelines).

Prior to workers boarding charter flights, workers are required to complete the Ministry of Health self-assessment and confirm results with their employer.

Additionally, every person accessing site is screened daily, including a temperature scan, at the gate before entering. BC Hydro and its contractors also set up thermal scanners at various exit and entry points of the worker accommodation lodge that are used before workers board crew buses or leave camp to go to various Project work sites.

BC Hydro continued to implement the protocols mandated by the Provincial Health Authority and the British Columbia Centre for Disease Control for the worker accommodation lodge and ensuring the on-site health clinic remained well stocked with the supplies needed to protect workers in the event of an outbreak.

On December 29, 2020 the Provincial Health Officer posted the Industrial Projects Restart Order, limiting the number of workers at five industrial camps in northern B.C., including Site C. The purpose of the Order was to impose a gradual return of out-of-region workers to the north through the months of January and February 2021 to prevent the risk of an outbreak of COVID-19 arising from the return of large numbers of workers to worksite and industrial camps. BC Hydro is prioritizing the available camp bed nights while maintaining the operation of the worker accommodation facility to the extent possible, in compliance with the Order.

2.2.1.2 Generating Station and Spillways

The generating station and spillways scope of work includes the construction of the following major components:

- Generating station and spillways civil works, including:
  - Powerhouse: Concrete placements, installation of structural steel, and installing hydraulic gates;
  - Inlet headworks: Concrete placements, construction of the penstocks, and installing hydraulic gates; and
  - Spillways: Concrete placements and installing hydraulic gates.
- Cranes, which includes the supply and commissioning the powerhouse cranes, tailrace gantry crane, and headworks gantry crane; and
- Hydromechanical equipment, including the supply of all gates.

Construction progress is taking place in the generating station and spillways civil works, cranes and hydromechanical equipment as described below.

Generating Station and Spillways Civil Works

The generating station and spillways civil works contract includes the delivery of civil works associated with the powerhouse, intakes, penstocks and spillways. The contractor stopped work on the generating station and spillways on March 18, 2020, due to the necessary reduction in the number of workers in the worker accommodation lodge because of COVID-19 pandemic, but continued to perform essential activities to care for the site, including concrete thermal control and water management. In May 2020, the contractor re-started work in a gradual, phased approach. Construction activities were significantly impacted for the generating station and spillways civil works and by the end of December 2020 most work areas had not been able to recover to the original plan for 2020, as described further below.

Powerhouse

Concrete placements for the powerhouse were ahead of schedule prior to work being suspended on March 18, 2020. Work started to ramp back up in May 2020; however, as of December 31, 2020, the contractor was behind plan due to the work stoppage and had placed approximately 112,000 cubic metres of concrete on a plan of 154,000 cubic metres. The powerhouse concrete is approximately 73 per cent complete.

Intakes Headworks

Production at the intake structures did not reach the planned levels due to the work stoppage in March 2020. As of December 31, 2020, 42,000 cubic metres of concrete had been placed out of a plan of 78,000 cubic metres. Work on Units 1, 2, 3, and 6 is approximately 48 per cent complete.

Penstocks

As of December 31, 2020, the generating station and spillways contractor had installed a cumulative total of 2,000,000 kilograms of steel for the penstocks compared to a plan of 3,800,000 kilograms of steel. The penstock work is approximately 50 per cent complete. Prior to the start of the COVID-19 pandemic, the penstock work was behind the original plan and the COVID-19 pandemic further impacted production. BC Hydro and the contractor have agreed to an updated work plan to recover the schedule which involves working on two penstocks simultaneously rather than working on one penstock at a time.

Spillways

The contractor placed 66,000 cubic metres of concrete compared to a plan of 105,000 cubic metres of concrete as of December 31, 2020. Prior to the suspension of work, construction of the upper spillway was planned to start in June 2020; however, this work started three months late in September 2020. The restarting of concrete work in the spillways stilling basins has been postponed as some foundation enhancement work is planned to be performed in the stilling basins.

Cranes

Powerhouse bridge cranes were installed in the main service bay in June 2019. These cranes can lift the heaviest equipment in the powerhouse, including the major components of the turbines and generators. The cranes were commissioned in August 2020.

Hydromechanical Equipment

The generating station and spillways civil works contractor completed installation of first stage embedded parts for Units 1 to 5 draft tube maintenance gates, and Units 1 and 3 intake gates. Installation of the second stage embedded parts was started in the draft tubes. Draft tube gates, intake operating gates and intake maintenance gates started shipping from Italy in 2020, and all of the gates are expected to be at the site by summer of 2021.

2.2.1.3 Balance of Plant

Procurement timelines for the original balance of plant contract were extended to respond to concerns raised by proponents on the impact of the COVID-19 pandemic. The financial submission deadline for balance of plant was extended, which delayed the contract award date past June 2020. The financial submissions from the two proponents were received on June 4, 2020. Following the evaluation process, a preferred proponent was selected and negotiations with the preferred proponent concluded in August 2020 with no agreement in place. As a result, the

procurement process was terminated on August 31, 2020. Following the termination of the request for proposals, a change in the contract framework was identified and the balance of plant work will now be procured through several requests for proposals throughout 2021. Subsequent to the reporting period, the mechanical request for proposals was posted to BC Bid on January 22, 2021.

2.2.1.4 Turbines and Generators

The scope of work for turbines and generators includes the complete design, supply, installation, testing and commissioning of six turbines, generators, governors and exciters. Overall, the design, procurement and manufacturing for the turbines and generators are on schedule.

Due to the necessary reduction in the number of workers in the worker accommodation lodge because of COVID-19 pandemic, the contractor's work assembly and welding of embedded turbine components in its temporary manufacturing facility at site were shut down in March 2020. However, delivery of components to site from the contractor's manufacturing facilities from various parts of the world continued at a somewhat reduced rate.

The work recommenced in August 2020 and the contractor continues the assembly and welding of embedded turbine components in its temporary manufacturing facility at site.

The contractor's São Paulo, Brazil factory will supply most of the turbine and generator components. There are some impacts due to the COVID-19 pandemic, but work is continuing. Meetings regarding manufacturing progress of the turbine and generator components in the São Paulo, Brazil factory are continuing and have been held concurrently with visits by BC Hydro's subcontracted inspection agencies to many of the contractor's subcontractors in the São Paulo area and Europe.

Due to the necessary reduction in the number of workers in the worker accommodation lodge because of the COVID-19 pandemic, the powerhouse

construction schedule was revised. The contractor mobilized to site in August 2020 and commenced installation on October 15, 2020. Two turbine runners were shipped from São Paulo, Brazil and arrived at the Port of Prince Rupert in late 2020. Subsequent to the reporting period, one turbine runner was shipped to site in January 2021 and the second turbine runner was shipped to site in early February 2021.

2.2.1.5 Transmission and Substation

The transmission sub-project will connect the Site C generating station to the BC Hydro transmission system. The scope of work includes the following major components:

- Two 75-kilometre-long, 500 kV transmission lines from the Site C substation to the Peace Canyon generating station;
- Three one kilometre long, 500 kV transmission lines from the Site C generating station to the Site C substation;
- A new 500 kV Site C substation; and
- Expansion of the existing Peace Canyon 500 kV gas-insulated switchgear to incorporate the two new 500 kV transmission line terminals.

Progress continued on the transmission and substation areas of the Project in 2020.

Previous cost pressures were identified in the 2019 Annual Progress Report No. 4 due to changes in scope due to geotechnical issues, and the First Nations treaty infringement claims and an injunction application, which impacted the planned sequencing of certain construction activities.

The COVID-19 pandemic impacted the transmission and substation activities but work generally continued as planned during this reporting period. The following reflects progress to December 31, 2020.

Transmission Towers and Lines

Access Roads and Clearing

Construction of an access road to the 72-kilometre mark of the transmission line right-of-way was completed in June 2020. As of September 30, 2020, all access and clearing work was completed.

Transmission Lines

The construction of the first 500 kV transmission line (5L005) was completed in September 2020 and the transmission line was energized ahead of schedule on October 9, 2020.

Construction of the second 500 kV transmission line (5L006) continued in 2020 and as of the end of December 2020, 173 of 205 foundations had been completed, 124 of 205 towers had been assembled, and 39 of 205 towers had been installed on foundations.

In total, 405 towers will support the two new 500 kV transmission lines that will connect the Site C substation to the Peace Canyon generating station, over a distance of 75-kilometres.

Substation

Substation construction was completed in September 2020, and the substation was energized on October 9, 2020, ahead of schedule.

North American Electric Reliability Corporation compliance was achieved.

2.2.1.6 Highway 29 and Hudson's Hope Shoreline Protection Berm

The creation of the Site C reservoir requires realignment of six segments of Highway 29 totalling approximately 32 kilometres. The scope of the highway realignment includes relocation of existing 25 kV distribution lines adjacent to the highway and the decommissioning of the sections of the existing highway that will no longer be used. BC Hydro is working with the Ministry of Transportation and

Infrastructure on Highway 29 construction. The Highway 29 sub-project also includes the construction of a shoreline protection berm within the District of Hudson's Hope to protect against bank erosion due to reservoir wind waves and water table rise, and the development and operation of Portage Mountain Quarry, which will supply riprap and filter materials for the highway and berm construction. The permanent highway realignment is planned to be completed by spring 2023.

The Highway 29 sub-project is divided into the following components:

- Cache Creek highway realignment and bridge;
- Halfway River highway realignment and bridge;
- Farrell Creek East highway realignment;
- Farrell Creek highway realignment and bridge;
- Dry Creek highway realignment and bridge;
- Lynx Creek highway realignment and bridge;
- Portage Mountain Quarry development and operation; and
- Hudson's Hope shoreline protection berm.

Previous cost pressures were identified in the 2019 Annual Progress Report No. 4 due to changes in scope as the designs have progressed, and the First Nations treaty infringement claims and an injunction application, which impacted the planned sequencing of certain construction activities.

The COVID-19 pandemic has impacted the highway realignment activities, but work has generally continued as planned during this reporting period. The following reflects progress to December 31, 2020.

Cache Creek

The Cache Creek highway segment has been divided into Cache Creek East (8.6 kilometres) and Cache Creek West (4.1 kilometres) to allow for the further realignment of the Cache Creek East segment of the highway.

Cache Creek East

Construction of the Cache Creek East embankment was completed in August 2020.

The Cache Creek East grading, paving and bridge contract was awarded on July 15, 2020 and construction started at the end of September 2020.

Cache Creek West

Construction on Cache Creek West was completed in August 2020, becoming the first highway segment to be completed.

Halfway River

The Halfway River Bridge includes the realignment of 3.7 kilometres of highway and the construction of a new one-kilometre-long bridge crossing the Halfway River, approximately 500 metres north of the current structure.

Construction of the 1,042-metre-long bridge at Halfway River started in January 2020 and included the operation of a concrete batch plant, aggregate plant, aggregate pit development, construction of bridge abutments and hauling and stockpiling of materials.

At the end of the reporting period, the contractor had completed the highway grading to 85 per cent, the bridge substructure to 97 per cent and the bridge superstructure to 53 per cent. This included the installation of all bridge piles, the completion of all 12 bridge piers and the installation of 33 of 81 bridge steel girders.

Farrell Creek East

The Farrell Creek East segment includes the realignment of 8.4 kilometres of highway. Geotechnical studies in 2019 concluded that 5.7 kilometres of this segment could be removed from the scope of work and monitored following the creation of the Site C reservoir, reducing the length of Farrell Creek East realignment work to 2.7 kilometres.

There was no work at Farrell Creek East during the reporting period. Procurement of the Farrell Creek East construction contract was initiated in September 2020 with a contract awarded on December 14, 2020. Construction is expected to start in early 2021.

Farrell Creek

The Farrell Creek segment includes the realignment of 1.9 kilometres of highway, including the construction of a new 411-metre long bridge.

A contract for the Farrell Creek grading, paving and bridge construction was awarded on July 29, 2020. Construction started in October 2020.

Dry Creek

The Dry Creek segment includes the realignment of 1.4 kilometres of highway, including the construction of a new 192-metre-long bridge.

A contract was awarded for the Dry Creek grading, paving and bridge construction on July 23, 2020. Construction began in September 2020. The contractor completed all bridge piling during the reporting period.

Lynx Creek

The Lynx Creek segment includes the realignment of 9.1 kilometres of highway and the construction of a 169-metre-long bridge. The Lynx Creek segment has been split into two contract packages; Lynx Creek East and Lynx Creek.

Lynx Creek East

Lynx Creek East embankment construction was completed in August 2020. For future reports, BC Hydro will be reporting on the overall Lynx Creek segment as the Lynx Creek grading and paving contract includes both the Lynx Creek East and Lynx Creek West segments.

Lynx Creek

The Lynx Creek grading, paving and bridge construction contract was awarded on September 18, 2020.

Construction of the Lynx Creek grading, paving and bridge started in October 2020.

Portage Mountain Quarry

Portage Mountain Quarry supplies riprap and berm filter materials for various segments of the Highway 29 realignment and construction of the shoreline protection berm in the District of Hudson's Hope.

Blasting and riprap production continued at the Portage Mountain Quarry from May 15 to September 15, 2020. All highway and Hudson’s Hope berm riprap and material contract quantities were met (397,000 cubic metres of rock were blasted against a plan of 369,000 cubic metres).

Hudson’s Hope shoreline protection berm

A contract for the Hudson’s Hope shoreline protection was awarded on September 28, 2020.

Construction of the Hudson’s Hope shoreline protection berm started in October 2020.

2.2.1.7 Reservoir

The COVID-19 pandemic has impacted the reservoir clearing activities, but work has generally continued as planned during this reporting period. The following reflects progress to December 31, 2020.

Previous cost pressures were identified in the 2019 Annual Progress Report No. 4 due to changes in scope as the designs have progressed, and the First Nations treaty infringement claims and an injunction application, which impacted the planned sequencing of certain construction activities.

Reservoir Clearing

The reservoir clearing scope of work is divided into two main regions:

- Lower reservoir, Moberly River drainage and eastern reservoir including Cache Creek drainage; and
- Middle reservoir, Halfway River drainage and western reservoir.

Clearing in the lower reservoir, Moberly River drainage, eastern reservoir and middle reservoir up to Halfway River was required to support river diversion in fall 2020. All other clearing is scheduled for completion prior to reservoir inundation.

Lower Reservoir, Moberly River Drainage and Eastern Reservoir including Cache Creek Drainage

Clearing activities including waste wood disposal occurred in the Moberly River drainage, north and south banks of the eastern reservoir and Cache Creek area over the past year. All clearing was completed in these areas except for some road deactivation works on the south bank of the eastern reservoir and some waste disposal activities including burning of piles in the Moberly River drainage and the north bank of the eastern reservoir. Road deactivation activities will occur in summer 2021 when road conditions are suitable. Burning will occur throughout 2021 when venting permits.

Middle Reservoir, Halfway River Drainage and Western Reservoir

Clearing activities occurred between Cache Creek and Halfway River drainage in early 2020 with works substantially complete except for some trees that were left for wildlife buffers. Contractors subsequently returned to these areas in fall 2020 and removed trees in the wildlife buffers and conducted burning of waste wood piles as venting permitted.

Surveying and inventory work west of Halfway River progressed in the first half of 2020. This work was used to develop preliminary access and clearing plans for the 2020-2021 clearing contract packages and data was used in submissions for regulatory approvals.

Three contract packages were procured and awarded between April and September 2020, one contract package for the Halfway River drainage and two contract packages for the areas between Halfway River and Farrell Creek. The three contractors mobilized to site by the end of September 2020.

Clearing of the reservoir up to Farrell Creek will be substantially complete by March 2021 with work continuing further westward in subsequent clearing seasons.

Other Reservoir Work

The scope of other reservoir work includes infrastructure relocations and reinforcements as well as environmental mitigation and enhancements works, which are required as part of reservoir filling.

Reinforcements works were procured, awarded and completed on a sewer outfall that discharges into the Peace River on the north bank of the eastern reservoir site.

BC Hydro's existing 1L364 transmission line crossing of the Halfway River drainage needs to be relocated prior to inundation. Geotechnical investigations were conducted in early 2020 and preliminary design work continued over the summer 2020. Fisheries habitat enhancement work is required as part of reservoir

filling. Preferred locations were identified and similarly design work advanced during this reporting period.

2.2.2 Engineering

The Engineering team provides technical support to all aspects of the Project. Through the reporting period, substantial effort was given to support the achievement of the contractor's schedule for both the main civil works and the generating station and spillways civil works contracts, as well as advancing the selection and design of required foundation enhancements to the structures on the right bank.

Main Civil Works

Over 2020, support for the main civil works contract has continued to focus on the completion of the infrastructure required for river diversion which included completion of constructability refinements for the diversion works and construction of the inlet and outlet cofferdams. The engineering team was also supporting excavations and grouting of the main dam foundations in preparation for the placement of dam fills in 2021.

Detailed geological mapping of the excavations and instrumentation monitoring continues during construction. This information is used to update the design parameters for the site geology and foundations.

Foundation Enhancements

In 2020, work was carried out to select and optimize the design of the foundation enhancement measures required to increase the stability below the dam core, powerhouse and spillways, to satisfy all Canadian Dam Association guidelines, which ensures the safety of dams in Canada.

In the summer and fall of 2020, BC Hydro completed the design and construction of the foundation enhancements at the right bank in the area of the interface between the roller-compacted concrete buttresses and the earthfill dam. This work included

deepening of the existing granular shear key, adding additional grouting and installing steel bedrock anchors.

To support the design of the foundation enhancement solutions within the spillways and powerhouse, BC Hydro retained subject matter experts to support the completion of state-of-the-art structural analysis, based on information gained from detailed geologic, hydro-geologic and structural engineering. In addition, engineering investigations were undertaken within the foundation of the spillways to measure, on a large scale, both the strength and the stiffness of the underlying bedrock to further calibrate engineering models and analysis.

BC Hydro and the Site C Technical Advisory Board considered several solutions that could be used to resolve the stability challenges in the right bank foundation, including roller-compacted concrete-filled shear key tunnels at the bases of the downstream key trenches, deep shear piles, post tensioned anchors, upstream drag plates and upstream roller-compacted concrete and piles.

As part of a value engineering process, different alternatives for each of these parts were assessed using multiple attributes to determine the preferred alternative. Value engineering will continue with cost and schedule optimization through early contractor involvement.

After considering all the alternatives, BC Hydro identified a two-part solution to improve the stability of the right bank structures: 1) structural enhancements located within the foundation of the spillways and powerhouse; and 2) enhancement of the water-tightness of the approach channel. These enhancements are illustrated below in Figure 2.

The first part of the solution is to improve the strength of the concrete buttresses beneath the right bank structures by anchoring the buttresses deeper into the rock below.

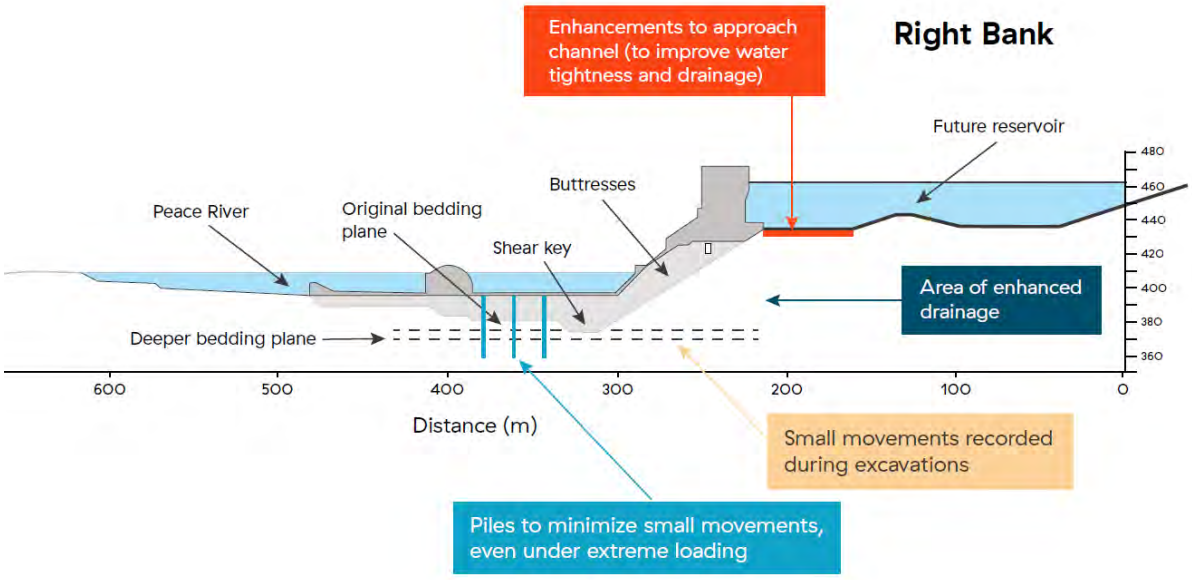
Vertical steel and concrete piles, each up to 2.5 metres in diameter, will extend the function of the shear key by drilling through the deeper bedding plane into the even stronger rock below it.

The piles will extend the function of the shear key a further 15 to 25 metres into the bedrock, below the deepest bedding plane where movements have been measured. The depth of the piles assures adequate stability even if weaker planes exist below the level identified; and the fixed nature of the piles will provide added resistance to both the spillways and the powerhouse in the event of a low probability, extreme or unusual event.

The second part of the solution is to improve the water tightness of the approach channel. The approach channel is located above the spillways and powerhouse and directs water from the reservoir, around the earthfill dam and into the generating station.

The approach channel's original design included features to make it water-tight, which prevents water from seeping out of the channel and into the underlying and surrounding bedrock. BC Hydro will enhance the approach channel liner and increase drainage to prevent water from seeping into the foundation when the reservoir is filled.

Figure 2 Right Bank Foundation Enhancement Measures



The Site C Technical Advisory Board, which is a panel of global engineering and construction experts that report to the Project Assurance Board, has been actively involved throughout the selection and design process, and completed a summary assessment of the proposed measures.

Given the scope, cost and schedule implications of the proposed measures, the Site C Project Assurance Board commissioned a further independent due-diligence review to assist it in its evaluation of the technical integrity of the proposed mitigation measures and ensure they meet the safety and reliability standards of the Canadian Dam Association. This review is being conducted by two internationally recognized dam experts who were specifically chosen because they are both recognized globally for their expertise in hydroelectric dams and because neither had any prior involvement with the Site C Project to date.

Large Cranes, Hydromechanical, Turbines and Generators

Engineering support to construction and vendor submittal review and integration was ongoing throughout 2020 for the large cranes, hydromechanical equipment and turbines and generators contracts.

Generating Station and Spillways, Balance of Plant and Equipment Supply

The majority of the design for the generating station and spillways civil works contract was completed through 2020, in support of and in accordance with the latest contractor's schedule. The focus in 2021 is to commence record drawings for the spillways and for the powerhouse, along with supporting construction with review of submittals.

With respect to the balance of plant scope of work, engineering focused on the revision and release of over 2,500 drawings and over 250 specifications to support the following balance of plant subcontracts including: mechanical, electrical, architectural, permanent upstream fishway and out structures, fire protection, and heating and ventilation. Work also continued to support the review of the technical submittals and design drawings, factory acceptance testing, and virtual factory visits for the nine equipment supply contracts including for the generator terminal equipment, generator circuit breakers, generator step-up transformers, AC station service, DC station service, 500 kV motor operated disconnects, diesel generators, large valves and compressed air receivers contracts. Finally, the balance of plant team continued to support the procurement for the balance of plant contracts through responding to requests for information, reviewing proposals and other BC Hydro requests. A complete 3D model with attributes for the components, which is the first of its kind at BC Hydro, will provide a legacy tool for construction quality, operations and maintenance details.

Engineering design continued to be advanced on the protection and control systems and is on schedule with various protection and control panels now under construction.

Overall the detailed engineering on the main civil works and generating station and spillways is approximately 95 per cent complete. This excludes the foundation enhancements design, for which the detailed engineering is approximately 35 per cent complete.

Transmission and Substation

Engineering support was provided to energize the Site C substation and the first 500 kV transmission line (5L005), and to complete an audit for North American Electric Reliability Corporation-related engineering activities.

Highway 29

Cache Creek, Farrell Creek, Dry Creek and Lynx Creek designs were completed and issued for construction. Farrell Creek East tender drawings were completed and included in a request for quotation. A geotechnical review of shallow bedding planes was undertaken on all highway segments and designs were updated as required. This review led to 17 additional shear piles being installed by the contractor on the Halfway River segment.

A geotechnical review of the completed stability buttress at Lynx Creek East was undertaken to confirm if additional work would be required to mitigate areas impacted by the future Site C reservoir. The review determined that an 80-metre section of the buttress needs to be increased in height to improve slope stability. This will be done by the Lynx Creek contractor.

The design of the Hudson’s Hope shoreline protection berm was completed and issued for construction.

Technical Advisory Board

Technical Advisory Board meetings occurred in January, May and October 2020 to review the overall status of the design and construction and review the recommendations from the design team. Many additional conference calls occurred

throughout the year and an additional report was issued in April 2020, which provides a summary of the requirements for the foundation enhancements.

Refer to Appendix D for the reports on Technical Advisory Board activities in 2020.

2.2.3 Quality Management

The Project has a quality management plan that outlines activities to ensure materials, equipment and the constructed works meet contract quality requirements. The plan identifies resources and procedures necessary for achieving the quality objectives, roles and responsibilities, and is the framework document for the quality management program.

During the reporting period, the Project team continued its activities to support the Project Quality Plan, including:

1. ongoing meetings with the quality management teams of key manufacturers in countries affected by COVID-19;
2. continuing the quality audit program for site works; and
3. continuing with monthly quality performance indicator assessments for the engineering, manufacturing and construction activities across each sub-project.

The Project team continues to track and manage quality nonconformances, which is an occurrence that does not conform to the quality requirements of the contract. Table 2 identifies quality management nonconformity instances during the reporting period.

Table 2 Quality Management Nonconformity Report Metrics Reporting Period – January 2020 to December 2020

Contract	Reported October 1, 2020 to December 31, 2020	Closed October 1, 2020 to December 31, 2020	Reported January 1, 2020 to December 31, 2020	Closed January 1, 2020 to December 31, 2020	Reported to Date	Closed to Date	Open as of December 31, 2020
Main Civil Works	37	40	330	300	1,809	1,773	36
Turbines and Generators	39	46	228	218	354	285	69
Generating Station and Spillways Civil Works	73	69	247	200	564	502	62
Large Cranes	3	1	6	4	23	21	2
Hydromechanical Equipment	0	1	10	9	18	18	0
Transmission	1	1	13	26	115	114	1

BC Hydro's ability to travel nationally and internationally to participate in equipment inspections and final acceptance tests continues to be restricted due to the COVID-19 pandemic. In order to mitigate the quality risks associated with these restrictions, BC Hydro continues to meet with contractors in affected areas, including the turbines and generators contractor (Brazil) and the hydromechanical equipment contractor (Italy) on a weekly basis to plan upcoming inspections and to coordinate with local quality assurance representatives. For critical quality tests or hold points, for example the unit 1 turbine tower assembly, BC Hydro participates remotely via video conferencing and data file sharing with the equipment manufacturer and the local quality inspector for the duration of the test or hold point. With the implementation of these measures, BC Hydro continues to ensure that quality requirements are satisfied prior to components being shipped.

During the reporting period, the main civil works contractor completed roller-compacted concrete batching and placement operations for the main dam buttress, and the quality of the roller-compacted concrete continued to be good. BC Hydro closely monitored the processing and placement of the cofferdam materials, as well as the manufacturing and installation of the steel pilings, and continues to be satisfied that the cofferdams are being constructed in accordance with the specifications. BC Hydro and the contractor continue to meet weekly to discuss and resolve open nonconformity reports as well as discuss broader topics related to the contractor's quality performance. BC Hydro will continue to work with the contractor in 2021 to ensure the operational readiness of its on-site materials testing laboratory in advance of the commencement of materials processing for the main dam.

The quality of the constructed works in the generating station and spillways and intake structures continues to be good. Powertech Labs maintained its site presence to support the penstock welding quality assurance program, and the quality of penstock fitting, welding and coating continues to be good. During the latter stages of the reporting period, a decline in the compressive strength of some concrete

samples was observed. The generating station and spillways contractor acted quickly to identify the root cause and implement corrective actions. BC Hydro is satisfied that the issue has been corrected and will continue to monitor. With the onset of winter conditions at the site, BC Hydro continues to work closely with the contractor to ensure focus is maintained on its wet-curing and thermal control of concrete processes.

For the turbines and generators contract, the quality of the components manufactured to date continues to be good. BC Hydro continues to meet with the contractor on a weekly basis to discuss upcoming inspections, quality issues and the overall quality assurance program.

For the transmission sub-project, the nonconformities reported in this period were minor in nature and the corrective actions were reviewed by BC Hydro and implemented by the contractor. BC Hydro continues to perform quality surveillance audits of the contractor to verify the quality of the work.

2.3 Safety and Security

BC Hydro managed several health and safety challenges in 2020, including a focus on cold exposure plans in early 2020 due to more challenging winter conditions than usual; managing the COVID-19 pandemic that emerged in the spring with a more serious second wave that started late in the year; two major rain events in the summer, which caused flooding and a need for hazardous work to remove accumulated debris; and several critical construction milestones, including completion of the diversion tunnels and diverting of the Peace River in October.

Management of COVID-19 Response

In the spring of 2020, many COVID-19 management initiatives were implemented across site to minimize the risk of transmission at the worker accommodation, all work fronts, and all construction offices. Measures included travel limitations, Ministry of Health self-assessment and confirmation before leaving home and again

before boarding a charter flight, Level 3 Infectious Disease sanitization protocols, and rigorous physical distancing compliance in all offices, work areas, shuttle buses, and shared areas of the worker accommodation.

Additionally, every person is screened, with a temperature scan, before entering site for the day. And, once in the lodge, workers are required to use thermal scanners located at various exit points of the facility before boarding crew buses or leaving camp to go to various work sites.

Site C is a mandatory mask site.

BC Hydro worked closely with the onsite medical clinic and the operator of the worker accommodation lodge to implement isolation / quarantine facilities and services. BC Hydro also worked with Northern Health Authority on key initiatives including transportation protocols to safely drive a worker under isolation home, an international travel protocol for essential workers, and a Site C positive test protocol which brings all Project positive cases under the Site C medical clinic's care and oversight.

From March to December 2020, the medical clinic saw 2,298 initial clinic visits for respiratory and gastrointestinal symptoms. Of these, 725 (32 per cent) of the workers were isolated. A total of 396 COVID-19 tests were administered, with 31 confirmed cases. The Project saw a significant increase in clinic visits and positive cases starting in October 2020, which was consistent with an increase in COVID-19 across the province.

About 65 per cent of the positive cases on the Project came from British Columbia, with the majority from the Northern Health region. About 77 per cent of the cases were attributed to community transmission as the most likely source. The Project experienced three contained clusters, accounting for 14 of the 31 positive cases and most of the worker isolations.

BC Hydro continues to monitor the COVID-19 pandemic closely and will implement new measures as the situation progresses, based on information and advice provided by health authorities.

Peace River Diversion

Activities described in the Safety Diversion Plan and the Public Safety and Security Diversion Plan were completed as planned, including the implementation of warning and danger signs on the Peace and Moberly rivers, and a security boat that patrolled upstream of the debris boom. Between July and October 2020, the security patrol spent 1,520 hours on the river and had 27 interactions with members of the public. There was a high level of public awareness that the river was closed.

Security

Safety and security related upgrades to the Site C access gates are well underway. Gate B upgrades are complete and include additional lanes for heavy vehicles waiting for a site host, paving, safe access for workers and additional environmental infrastructure in the event of an environment spill. Gate C work is substantially complete and include levelling the road and widening the turning radius to ensure large turbine components can transit safely onto site. Gate C has been reconfigured to be managed remotely from the security centre at Gate A.

BC Hydro also implemented a new electronic system for signing in and out of site construction offices, based on authorized site access cards. This system is efficient and enables real time access to the location of BC Hydro employees and contractors for emergency management. The same solution was implemented for the thermal scanners in the lodge and on the major contractor's crew buses, to assist with rapid contract tracing for possible COVID-19 contacts.

Summary of Safety and Regulatory Performance Metrics

From July 2015 through December 2020, all work fronts across the Project had completed almost 31 million work hours, with no fatalities and one permanent partial disabling injury in 2017.

As shown in Figure 3, in 2020 the Project reported 21 serious safety incidents consisting of eight near misses, and 13 injuries that either required medical attention or had the potential to be a serious injury. There were two serious injury incidents of note in 2020:

- On April 5, 2020, a serious safety incident occurred at the Halfway River bridge construction site. Two construction workers were seriously injured when the rebar material they were using to build one of the bridge piers failed. The workers were treated at the scene and transported to hospital in Fort St. John by ambulance.

  BC Hydro has partnered with the Ministry of Transportation and Infrastructure to realign the six segments of Highway 29. Since this work is being completed as part of the Site C Project, BC Hydro views it as a safety incident on the Project and will be tracking the incident in Project safety metrics. BC Hydro worked with the Ministry of Transportation and Infrastructure, their contractor, and WorkSafeBC to review the incident and look for opportunities for improvement. The subcontractor has now changed their work procedures by using scaffolding and person lifts for all rebar work.

- On November 25, 2020, a worker was seriously injured by falling approximately 33 feet to an elevated concrete platform at the intakes to the powerhouse. The worker was cutting holes in plywood decking to allow shoring tower columns to be added, and momentarily failed to attach their fall arrest equipment. The contractor investigation is in progress.

Refer to Appendix B for a listing of all serious safety incidents.

Additionally, there were 793 non-serious safety incidents in 2020, which included 227 near misses and 566 minor injuries that may have required first aid and/or some medical treatment. Non-serious safety incidents were down 23 per cent from 2019; due in part to a notable increase in safety incidents in 2019 from multiple active work fronts and significant work hours on the two division tunnels. The diversion tunnels were completed by late summer 2020.

Figure 3 Serious and Non-Serious Incidents

	Serious		Non-Serious		GRAND TOTAL
	2019	2020	2019	2020	
NEAR MISS	8	8	339	227	582
INJURY	14	13	692	566	1,285
GRAND TOTAL	22	21	1,031	793	1,867

A “near miss” is defined as an incident that could have resulted in an injury, but did not because of effective hazard barriers or the person was out of harm’s way/missed.

To encourage a safety learning culture across all work fronts and contractors, the Project held 115 Safety Incident Reviews in 2020. BC Hydro and contractor senior leaders reviewed the 21 serious and another 15 more significant safety incident investigations and corrective actions. The construction management and safety teams reviewed another 79 less significant incidents as well as safety trends (e.g., rebar incidents, eye injuries, concrete injuries).

Table 3 below reflects safety and regulatory performance results for the Project, including all contractors and all sub-projects. The table summarizes results in a tabular format.

Table 3 Summary of Site C Safety and Regulatory Metrics

	Reported for Quarter October 1, 2019 to December 31, 2019[3]	Reported for Quarter October 1, 2020 to December 31, 2020[3]	Reported for 2019 (January to December)[3]	Reported for 2020 (January to December)[3]	Reported Since Inception (July 27, 2015 to December 31, 2020)[3]
Fatality[4]	0	0	0	0	0
Permanently Disabling Injury[5]	0	0	0	0	1[6]
Serious Incidents[7]	10	4	22	21	75
Lost Time Injuries[8]	1	1	6	9	34
All-Injury Incidents[9] (Lost Time Injuries[8] and Medical Attention requiring Treatment[10])	23	17	70	57	204
Regulatory Inspections	16	9	87	43	201
Regulatory Orders	31	15	132	39	295

3 Numbers are subject to change due to timing of when data is retrieved and when injury is categorized.

4 Excludes any non-occupational incidents.

5 A permanently disabling injury is one in which someone suffers a probable permanent disability.

6 In June 2018, an injured worker received a permanent partial disability award from WorkSafeBC due to a lost time injury incident in August 2017. The worker was attempting to unload a light plant (tower) from a flatbed truck. The worker stepped on the light plant (tower) outrigger to gain enough height to reach the lifting attachment when the worker lost balance and fell approximately 7.5 feet to the ground. BC Hydro reclassified this incident as a permanent disabling injury after receiving an update on the WorkSafeBC award in June 2018. The incident is identified as a serious injury in the BC Hydro Incident Management System.

7 Serious incidents are any injury or near miss with a potential for a fatality or serious injury.

8 Lost time injuries are those where a worker (employee or contractor) misses their next shift (or any subsequent shift) due to a work-related injury / illness. If a worker only misses work on the day of the injury, it is not considered a lost time injury.

9 All-Injury incidents is a count of all work-related medical attention requiring treatment, lost time injuries, and fatalities.

10 Medical attention requiring treatment is where a medical practitioner has rendered services beyond the level defined as “diagnostic or first aid” and the worker (employee or contractor) was not absent from work after the day of the injury. Services beyond diagnostic / first aid include (but are not limited to) receiving stitches, a prescription, or any treatment plan such as physiotherapy or chiropractic.

By February 2020, the main civil works contractor work hours peaked due to their focus on diversion activities. At the same time, the generating station and spillways contractor was scaling up their workforce to support four major work segments (powerhouse, spillways, intakes and headworks). The Project saw an increase in safety incidents around this time, including lost time injuries.

There were eight lost time injuries between January and April 2020 and one lost time injury in November 2020. Three of the eight lost time injuries were from objects falling from height, and two were due to poor winter conditions where workers slipped on ice and injured their leg and/or foot. Overall, lost time injuries on the project remains a focus.

There was a decline in safety incidents starting in late April 2020, due to scaling back work to critical diversion activities and essential work, due to COVID-19.

Safety Verifications

In 2020, the Site C safety team completed a total of 653 formal, planned safety verifications for the Project (on dam-site and off dam-site) – an average of 54 per month. This is consistent with the 656 verifications completed in 2019, indicating little slow-down in field safety activity due to COVID-19. The closure rate for these 2020 verifications (indicating the number of identified nonconformances addressed) was 98.9 per cent; a strong result due in part to improved collaboration between the BC Hydro construction and safety teams. One improvement seen in 2020 related to 25 per cent (162) of green / “clean sheet” verifications, where no nonconformances were found during the verification. Further, 86 per cent of all the safety verifications conducted in 2020 identified good safety practices even if there were some nonconformances.

Safety Performance Frequency Metrics

To assess safety performance over time, the Project considers key safety metrics in the context of the total amount of hours worked (frequency) which corrects for the

volume of work. Table 4 below summarizes these key safety frequencies by quarter for a rolling 12-month average.

Table 4 Summary of Safety Performance Frequency Metrics

	Fiscal 2020 April 2019 – March 2020 (Rolling 12-Month Average)				Fiscal 2021 April 2020 – March 2021 (Rolling 12-Month Average)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Serious Incident Frequency	0.43	0.39	0.53	0.53	0.55	0.62	0.49	n/a
Lost Time Injury Frequency	0.23	0.18	0.14	0.22	0.23	0.21	0.21	n/a
All Injury Frequency	1.03	1.44	1.68	1.93	1.92	1.47	1.34	n/a

Fiscal 2021 Q4 will be updated when information is available.

Comparing Q3 results from Fiscal 2020 to 2021 indicate the serious incident frequency and all-injury frequency metrics (adjusted for work hours) have decreased and lost time injury results have increased.

The serious incident frequency for October to December 2020 (F2021 Q3) quarterly reporting period is 0.49, a slight but not significant decrease compared to 0.53 for the same period in 2019. Lost time injury frequency this quarter is 0.21, a significant increase compared to 0.14 from the same quarter last year, as discussed above. Finally, all-injury frequency is at 1.34 this quarter, a 20 per cent decrease compared to 1.68 for the same quarter last year; the decrease was in medical attention injuries.

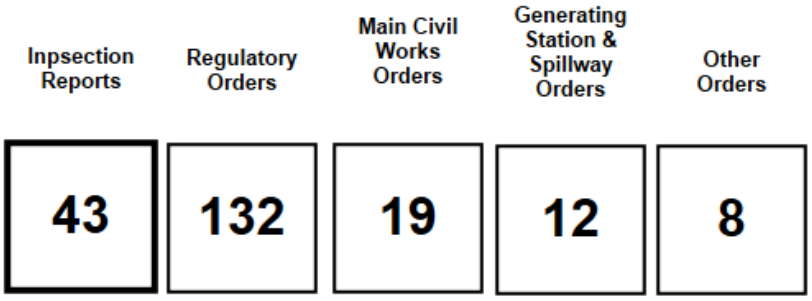
Regulatory Inspections and Orders

WorkSafeBC, under the authority of the *Worker's Compensation Act*, is the primary regulator with jurisdiction over safety for the Project. WorkSafeBC oversees all worker safety (employee and contractor) for the Project, both on the dam site and off the dam site. The Ministry of Energy, Mines and Low Carbon Innovation is the regulatory authority for worker safety on any work fronts subject to the *Mines Act*, specifically West Pine Quarry, Portage Mountain Quarry, and Wuthrich Quarry.

From October to December 2020, WorkSafeBC issued eight regulatory inspection reports and 10 regulatory orders. The Ministry of Energy, Mines and Low Carbon Innovation issued one inspection report and five orders for the West Pine Quarry.

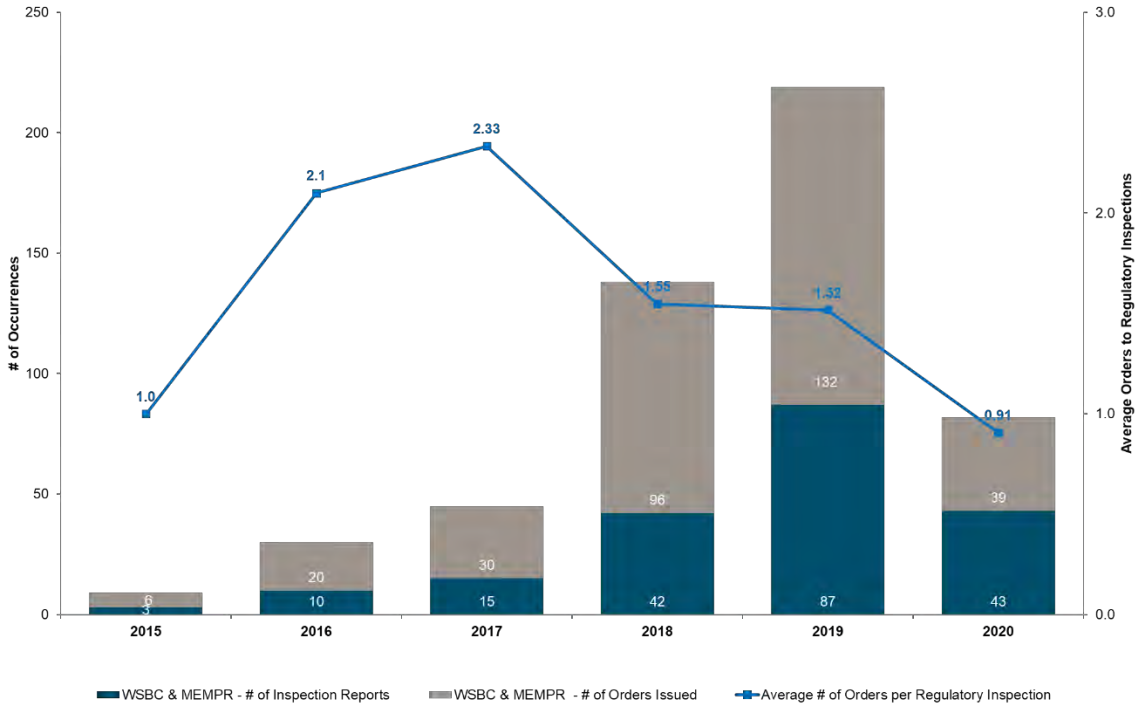
As shown in Figure 4 below, for 2020 overall the Project was issued 43 regulatory inspection reports with 39 orders and no stop-work orders compared to 130 regulatory inspection reports with 125 orders and seven stop-work orders in 2019. The drop in 2020 inspection reports is primarily due to scaling back the Project to critical river diversion and essential work only, due to COVID-19. Of these, WorkSafeBC accounted for 40 inspection reports with 29 orders, and the Ministry of Energy, Mines and Low Carbon Innovation for three inspection reports with 10 orders. Most regulatory inspections were for the main civil works and generating station and spillways sub-projects.

Figure 4 Regulatory Inspections in 2020



About 67 per cent of the 2020 regulatory inspection reports were ‘clean sheets’ with no orders, an improvement from 44 per cent clean sheets in 2019. The Project monitors an additional metric – average number of orders per regulatory inspection. For 2020, the average number of orders per inspection is 0.91, an improvement from 1.52 orders per inspection in 2019.

Figure 5 Number of Orders to Regulatory Inspections, 2015 to 2020



Refer to Appendix B, for a list of all regulatory inspections and orders received in 2020. The more significant regulatory inspections came from WorkSafeBC and were related to:

- COVID-19 compliance;
- Exposure control plans;
- Tower crane incidents in the right bank; and
- Fall protection programs and incident management.

2.4 First Nations Consultation

Pursuant to the Environmental Assessment Certificate and Federal Decision Statement, BC Hydro is required to consult with 13 Indigenous groups with respect to the construction stage of the Project. This consultation includes provision of information on construction activities, support for the permit review process, and review and implementation of mitigation, monitoring and management plans, and permit conditions.

Accommodation offers were originally extended to ten First Nations communities. Seven agreements have been fully executed and are in various stages of implementation. In February 2019, the Province of British Columbia, BC Hydro, West Moberly First Nations and Prophet River First Nation agreed to enter into confidential discussions to seek alternatives to litigation related to the Site C Project. West Moberly First Nations withdrew from the discussions in August 2019 and filed an amended Notice of Civil Claim in September 2019. The Province of British Columbia and BC Hydro have since negotiated an agreement with Prophet River First Nation to settle this litigation, which was publicly announced in August 2020. To date, Impact Benefits Agreements with Doig River, Halfway River, Prophet River, and Saulteau First Nations, McLeod Lake Indian Band, and Project Agreements with Dene Tha' and Duncan's First Nations have been publicly announced.

Diversion readiness, headpond, Highway 29, mitigation, and monitoring engagement activities were adapted in light of the COVID-19 pandemic, including continuation of the Environment Forum and the Culture and Heritage Resources Committee, primarily by video conference. Modified community engagement events were organized for several Nations. Most of the Nations have also participated in COVID-19 modified site tours. Additional communication materials, including videos and social media, have also been developed to support ongoing information sharing. Consultation is ongoing with impacted First Nations regarding options and site-specific plans for identified burial and cultural sites impacted by reservoir

inundation, in particular in the Halfway River and Cache Creek Bear Flats areas. The cultural monitoring program continues with First Nations monitors observing Project construction at the dam site and Highway 29 locations as well as environmental enhancement and mitigation programs.

In October 2020, in collaboration with the Project's Cultural and Heritage Resources Committee, BC Hydro launched a new interactive travelling exhibit that tells the story of Indigenous peoples in the Peace Region.

The exhibit documents past use of the area, stories from various communities and commemorates sites that will be lost to inundation from the future Site C reservoir. It includes important archaeological evidence uncovered from the Site C construction area, which spans from 12,500 years ago until the recent past.

The Cultural and Heritage Resources Committee travelling exhibit is currently on display at the Visitor's Centre in Fort St. John and will resume travel to communities once health orders regarding COVID-19 are lifted.

2.5 Litigation

A number of legal challenges to the Project have been filed by First Nations and other interests. In all cases where the courts have issued rulings, the legal challenges have been dismissed.

The treaty infringement claim filed by West Moberly First Nations in January 2018 remains active. West Moberly First Nations had concurrently filed an injunction application in January 2018 to stop construction of the Project pending the trial of their treaty infringement claim, but the interim injunction was denied by the court. Prophet River First Nation also filed a treaty infringement claim in January 2018 and, as noted below, this claim has now been settled.

In February 2019, the Province of British Columbia, BC Hydro, West Moberly First Nations and Prophet River First Nation agreed to enter into confidential discussions to seek alternatives to litigation related to Site C. West Moberly First Nations withdrew from the discussions in August 2019 and is continuing with its litigation. In August 2020, the Province announced that BC Hydro, the Province and Prophet River First Nation had reached two agreements on the Site C Project that resulted in the discontinuance of the Prophet River First Nation's civil claim. These agreements are an impact benefits agreement between BC Hydro and Prophet River First Nation and a tripartite land agreement among BC Hydro, the Province and Prophet River First Nation[11]. A Notice of Discontinuance of Prophet River First Nation's civil claim was filed in court on November 19, 2020.

On September 25, 2019, West Moberly First Nations filed an Amended Notice of Claim, which, among other things, expands their original treaty infringement action, shifting the focus to all three Peace River facilities, not just Site C, and their alleged cumulative impacts. The West Moberly First Nations are seeking an injunction against operating the Site C Dam, an order to remove the dam, and damages, including the payment of all revenues earned on the existing Peace River dams. BC Hydro is preparing for the trial, which is scheduled to commence in March 2022.

The details of open proceedings in 2020 are summarized in Table 5 below. Other than the West Moberly First Nations treaty infringement claim, the litigation listed in Table 5 is either inactive, meaning no steps have been taken in litigation that require a response from BC Hydro, or does not present a material financial risk to BC Hydro.

[11] This announcement also notes a letter of commitment signed by the Province and Prophet River First Nation.

Table 5 Litigation Status Summary

Description		Date
B.C. Supreme Court: Treaty Infringement Claims		
West Moberly First Nations	Civil claim filed	January 15, 2018
	Injunction application filed	January 31, 2018
	Injunction hearing date	July 23 to August 3, 2018 and September 4 to 7, 2018
	Injunction denied (no appeal filed)	October 24, 2018
	Amended civil claim filed	September 25, 2019
	Scheduled trial date	March 2022
Prophet River First Nation	Civil claim filed	January 15, 2018
	Settlement announced	August 5, 2020
	Notice of discontinuance filed	November 19, 2020
B.C. Supreme Court: Civil Claims		
Building Trades v. BC Hydro	Civil claim filed	March 2, 2015
	Response to claim filed	April 10, 2015
Aggregate Mining Process LLC and Reynolds Shipping LLC	Civil claim filed	November 16, 2018
	Response to claim filed	December 6, 2018
	Order granting security for BC Hydro's costs	June 17, 2019
	Application to dismiss filed after plaintiff failed to post security as ordered (later adjourned after plaintiff belatedly posted security)	July 31, 2019
	Application for interpleader relief filed by BC Hydro	May 12, 2020
	Settlement Reached. BC Hydro's interpleader application adjourned	August 4, 2020
	Consent dismissal order filed	October 6, 2020

2.6 Permits and Government Agency Approvals

2.6.1 Background

Before the Site C Project could start construction, an extensive environmental assessment process was undertaken which resulted in the issuance of the Provincial Environmental Assessment Certificate and the Federal Decision Statement in support of the Project. In addition, the Project is required to apply for multiple provincial permits, water licences, leaves to commence construction and federal authorizations. Timing of the application for these permits and authorizations is staged and aligned with the construction schedule, availability of detailed design information, and by Project component. Permitting approaches and requirements are also determined through regular meetings with regulatory agencies and are subject to change throughout the Project. As at December 31, 2020, BC Hydro estimates that approximately 550 permits will be required throughout the life of the Project. Of these permits, 464 have been received and are actively being managed.

Multiple conditions are attached to each permit or authorization, which cover subjects such as air quality, water quality, fish and aquatics, wildlife, heritage, health and safety, construction environmental management and First Nations consultation. Each of the conditions must be implemented, audited and tracked to prove compliance or identify issues for follow-up with corrective actions. Table 6 provides an overview of Provincial Environmental Assessment Certificate and Federal Decision Statement Conditions. BC Hydro has developed a comprehensive Construction Environmental Management Plan which outlines how we will comply with the Project Environmental Assessment Certificate, Federal Decision Statement, and provincial and federal permits and authorizations. As of December 31, 2020, all required conditions and submissions have been met in accordance with the schedule and requirements of the conditions.

Table 6 Overview of Provincial Environmental Assessment Certificate and Federal Decision Statement Conditions

Type	Number of Environmental Assessment Certificate Conditions	Number of Federal Decision Statement Conditions	Notes
AQUATIC ENVIRONMENT			
Hydrology, Water Quality	3	12	Monitoring and management of hydrology, fluvial geomorphology and sediment transport, and water quality.
Downstream Monitoring		5	Analysis of model predictions using existing data (Peace Athabasca Delta).
Fish and Fish Habitat	4	10	Protecting riparian zones, including fish passage in design, and managing total dissolved gas.
Vegetation and Ecological Communities	7	9	Updating mapping, conducting pre-construction surveys, analyzing wetland function and replacing lost wetlands, protecting rare plants.
Species at Risk		6	Ensuring that potential effects are addressed and monitored.
Wildlife Resources	10	17	Providing bird windows and identifying mitigation measures for migratory and non-migratory birds, bats, snakes, and fishers.
Current Use	4	4	Mitigating Indigenous plant use and ground truthing measures to inform additional measures.
LAND AND RESOURCE USE			
Harvest of Fish and Wildlife	1		Compensating guide outfitters and trap line holders.
Agriculture	2		Establishing a $20 million fund and monitoring.
Other Resource Industries	3		Addressing surplus aggregate, and interface with oil and gas producers.
Transportation	5		Controlling access, providing carpool plans, monitoring traffic and delivering appropriate signage.

Type	Number of Environmental Assessment Certificate Conditions	Number of Federal Decision Statement Conditions	Notes
Outdoor Recreation and Tourism	3		Building boat launches and recreation fund, compensating camp ground owners, and informing downstream Alberta fishers.
COMMUNITY			
Community Infrastructure	6		Mitigating effects on waste management, sewage and water systems.
Housing	2		Building 50 rental units in Fort St. John and providing camp accommodation for workers.
Regional Economic Development	6		Providing funds for Hudson's Hope, non-profits, labour/training plans, and community recreation.
HUMAN HEALTH			
Air Quality/Noise	4	7	Monitoring of ambient air quality, noise and vibration.
Water Quality	1		Monitoring of potable and recreational water quality.
Methylmercury	1	7	Monitoring of accumulation in fish, including collection, timing and reporting requirements.
HERITAGE RESOURCES			
Visual Resources	1		Managing landscape views through design of facilities exteriors and landscaping.
Heritage	3	6	Developing a Heritage Management Plan and providing funding for storage.
ENVIRONMENTAL PROTECTION and MANAGEMENT			
Greenhouse Gas Monitoring	1		Monitoring greenhouse gas emissions.
Environmental Management Plans	4		Providing required plans and establishing requirement for an Independent Environmental Monitor.

Type	Number of Environmental Assessment Certificate Conditions	Number of Federal Decision Statement Conditions	Notes
Safety Management Plans	2		Developing and implementing Worker and Public Safety, Traffic Management, and Fire Protection Plans.
Dam Safety	2		Undertaking a dam breach assessment and supporting emergency management in Alberta.
Mitigation, Monitoring and Development Plans	4		Providing required mitigation plans, Quarry Development, Communications and Business Participation Plans.
Accidents and Malfunctions		6	Providing required plan and consultation with Environment Canada on effects of potential accidents and malfunctions on the environment.
ADMINISTRATIVE			
General Conditions		4	Using science to inform plans and carry on consultation as appropriate.
Implementation Schedule		3	Providing an implementation schedule for conditions 90 days in advance of activity.
Record Keeping		2	Retaining records in a manner that facilitates compliance review.
TOTAL	79	98	

2.6.2 Federal Authorizations

Federal authorizations are required under the *Fisheries Act* (Fisheries and Oceans Canada) and the *Navigation Protection Act* (Transport Canada). All major federal authorizations for construction and operation of the Site C dam and reservoir were received in July 2016. As of December 31, 2020, no further *Fisheries Act* authorizations are anticipated. Additional *Navigation Protection Act* approvals for discrete works in the reservoir (e.g., shoreline works, debris booms and Highway 29 bridges) are anticipated to be issued at the regional level. As of December 31, 2020,

a total of 92 federal approvals have been received and are actively being managed. Fifteen future approvals are planned.

2.6.3 Provincial Permits

Site C requires provincial permits primarily under the *Land Act, Water Sustainability Act, Forest Act, Wildlife Act, Heritage Conservation Act,* and *Mines Act*. These permits include investigative permits, licences to occupy land, water licence approvals, leaves to commence construction and leaves to construct, and licences to cut vegetation, among others. Permit applications are sequenced with the overall schedule of the Project to ensure the most current and factual information is included in the submissions.

Approximately 446 provincial permits and approvals will be required throughout the life of the Project. As of December 31, 2020, 372 permits have been obtained and are actively being managed. These have included permits for the dam site area (for the main civil works and generating station and spillways, such as river diversion, construction of cofferdams, excavation and construction of roller-compacted concrete buttress), worker accommodation (land tenure and water withdrawal), Highway 29 construction, transmission line clearing and construction of access roads, and lower/eastern reservoir, Moberly River and Halfway River clearing. Future provincial permits are planned for the construction of reservoir boat launches, western reservoir clearing, and dam site works related to the balance of plant and hydromechanical gate installation. All future permits are anticipated to be issued in accordance with the Project construction schedule.

The majority of the provincial permits are administered by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development and the Ministry of Energy, Mines and Low Carbon Innovation. In addition, BC Hydro has developed a coordinated First Nations consultation process with the Ministry of Forest, Lands, Natural Resource Operations and Rural Development to assist with the government

permit workload. This coordinated consultation process was implemented in January 2018.

2.6.4 Environmental Assessment Certificate

Compliance with the Project conditions in the Environmental Assessment Certificate is regularly monitored, and evidence is collected by various federal and provincial regulatory agencies, the Independent Environmental Monitor, BC Hydro and contractors.

In 2020, the Environmental Assessment Office issued the following two amendments to the Project's Environmental Assessment Certificate.

- On May 27, 2020, the Environmental Assessment Certificate was amended to allow design changes at Highway 29 realignment crossings at Farrell Creek, Dry Creek and Lynx Creek, and
- On November 24, 2020, the Environmental Assessment Certificate was amended to allow for the use of an area immediately east of the Halfway River as a borrow source for reservoir clearing access roads.

BC Hydro initiated engagement with affected stakeholders on an amendment to allow for hauling of till materials from the 85th Avenue Industrial Lands to the dam site, should the till conveyor becoming inoperable for a long period of time. BC Hydro has received concerns from the Peace River Regional District and some local residents and is considering those concerns as they advance the amendment for approval in 2021. Hauling will comply with all requirements for the use of public roadways.

All amendments and amendment requests are posted on the Environmental Assessment Office website.

As with any large construction project, refinements to the design are expected. There are no material impacts to the cost of the Project as a result of the proposed amendment requests.

2.6.5 Permitting Improvement

To efficiently and effectively manage the large volume of permits required for the Project, BC Hydro continues to engage with regulators, Indigenous groups, and contractors to share information, seek feedback, and identify process improvements. Process improvements implemented include the following:

- BC Hydro continues to facilitate meetings with the Ministry of Forests, Lands, Natural Resource Operations and Rural Development, the Comptroller of Water Rights, the Department of Fisheries and Oceans and contractors to ensure permit applications are coordinated, timely and sufficient;
- BC Hydro has implemented a coordinated Indigenous groups consultation process with the Ministry of Forest, Lands, Natural Resource Operations and Rural Development to assist with the government permit workload; and
- Regular permitting forums are being held with Indigenous groups to share information on upcoming permit applications and to seek feedback before applications are submitted to regulators. Given progress on provincial permit applications, smaller bundles of permits may also be reviewed with Indigenous groups at Environmental Forums. Four permitting forums were held in 2020: one in the City of Fort St. John on February 20, and three online on June 10, July 7, and November 19 due to COVID-19 protocols.

2.7 Environment

2.7.1 Mitigation, Monitoring and Management Plans

The Environmental Assessment Certificate and Federal Decision Statement conditions require the development of environmental management, mitigation and

monitoring plans, as well as the submission of annual reports on some of these plans.

Focus remains on minimizing sediment and erosion across the dam site, care of water, hydrocarbon management and invasive weed control. Given the size of the Project and the length of construction, wildlife is becoming less wary of the site. As such, wildlife attractant management is also becoming more of a focus.

Despite COVID-19 related work reductions at site, all contractors were required to retain crews to provide water management and other environmental compliance-related activities.

On the left bank, all care of water systems performed well, re-vegetation is occurring in many areas of the site, the vehicle weed wash station operated throughout the reporting period, and construction of the temporary fish passage facility was completed, and the facility was commissioned.

On the right bank, the water treatment plant and holding ponds to treat potentially acid generating rock contact water were fully operational throughout the reporting period and did not have any reported end-of-pipe exceedances.

Wildlife mitigation programs are progressing. Artificial eagle nest platforms and artificial snake dens were installed throughout the reporting period. Wildlife sweeps of the area for any potential project interactions continue regularly and appropriate mitigation or avoidance practices established, such as snake fencing and warning signs, no work zones, and limiting hours or days of work with significant focus in the head pond area. A beaver radio telemetry study to track beavers affected by the winter 2020/21 headpond was completed (ten beavers were tagged). Tracking will continue through winter and spring 2021. Wildlife and fisheries studies and monitoring continue to collect baseline usage data for comparison post dam construction.

The Golata Creek wetland became functional over the reporting period. This completed work is being used to inform the approach to the remaining wetland off-set requirements and may result in some re-scoping of planned works. Additionally, in reservoir fish habitat, works are being reviewed based on a better understanding of the local conditions and regulator expectations.

Air quality, water, noise and light monitoring continue at various locations throughout the Project with only localized or sporadic elevated readings noted and appropriate mitigations taken. A new air quality monitoring station was installed in Hudson's Hope, as planned.

Care of water systems are substantially complete within the till conveyor area and include directional ditching, sediment control devices and ponds.

Works are substantially complete for the right bank downstream side channel fish enhancement project. This has created shallow, still backwaters that provide valuable habitat for fish within the Peace River. The area initially identified for similar enhancements on the left bank is approximately two kilometres downstream of the Project site and near the Old Fort landslide, an historic slide that re-activated in late 2018. Alternate locations are being sought to ensure compliance with the *Fisheries Act* authorizations. This has resulted in a change of scope for this work.

BC Hydro engaged Indigenous communities through 2020 on a number of environmental programs, including headpond denning mitigation, beaver telemetry and reservoir methylmercury studies. BC Hydro is adjusting the scope of some environmental programs based on the input from Indigenous groups to ensure their concerns are understood and addressed.

As of December 31, 2020, all required submissions have been made in accordance with the schedule and requirements of the conditions, including all environmental protection plans required for the generating station and spillways contractor.

In 2020, all mitigation and monitoring annual reports were submitted in accordance with the conditions.

2.7.2 Environmental Compliance Inspections and Enforcement

Inspectors from the B.C. Environmental Assessment Office, Department of Fisheries and Oceans Canada, Impact Assessment Agency of Canada, the Independent Environmental Monitor, and the Comptroller of Water Rights, performed over 2,000 hours of inspections between January 1 and December 31, 2020.

Throughout the course of the onsite inspections, environmental compliance was focused on the following areas:

- Selected over-greasing of equipment at the dam site area. BC Hydro is requiring any noncompliant contractors to immediately address the noncompliance and implement an action plan that requires equipment to be maintained going forward to prevent a re-accumulation of grease;
- In January 2020, BC Hydro received an Order from the Environmental Assessment Office regarding animal attractant management. To address this Order, BC Hydro is actioning items such as new communication tools (posters, videos, tailboards) regarding the need to manage attractants better, increased inspections and a focused effort on managing wildlife attractant related Contractor noncompliances;
- Spill prevention and response plans. BC Hydro is addressing this concern by continuing to utilize spill pads and drip trays and monitoring of equipment with appropriate storage and disposal. This also includes replenishing/refreshing spill kits and continued spill kit inspections;
- Acid Rock Drainage and Metal Leachate Management Plan: BC Hydro presently has mitigation in place to manage potential acid generated contact water at the Halfway River Bridge site via hauling to potential acid generated disposal sites and lined containment vacuum trucks. Additionally, the

Environmental Protection Plan has been updated to reflect the ongoing mitigation at that location;

- Erosion prevention and sediment control within the Halfway River Bridge site. BC Hydro continues to apply appropriate erosion and sediment control measures at the site, including seeding and additional erosion control blankets; and
- Agricultural Mitigation and Compensation Plan development. BC Hydro continues discussions with agricultural land owners and tenure holders to jointly develop mitigation plans throughout the construction phase for all farms directly affected by the Project.

BC Hydro completed almost 36,000 environmental compliance inspections in 2020, with a compliant or partial compliant result of 99 per cent across all contractors and works areas.

Site C Project staff meet bi-weekly with provincial regulators to ensure ongoing focus and attention to the areas of most importance and concern for the regulators, and to proactively address any environmental or regulatory issues that may arise.

Additionally, the Project has engaged both an Independent Environmental Monitor and an Independent Engineer that report directly to provincial regulators. The Independent Environmental Monitor provides weekly reports that have also demonstrated substantial compliance across the Project while continuing to identify areas of focus for sediment and erosion control, water management and spill prevention. The Independent Engineer works directly with site staff to proactively identify design issues that may impact the environment and develop mitigation plans to avoid or minimize impacts.

2.7.3 Heritage

In accordance with Environmental Assessment Certificate and Federal Decision Statement conditions, the Site C Heritage Resources Management Plan addresses

the measures that will be used to mitigate the adverse effects of the Project on heritage resources.

The 2020 heritage program focused on field work that met regulatory requirements for pre-construction archaeological impact assessments and systematic data recovery at selected archaeological sites, as well as providing Project construction support. Heritage activities continued through the reporting period and managed to stay ahead of advancing work fronts, thereby avoiding Project delays.

Heritage field work includes approximately 25 archaeologists and Indigenous community representatives, and the submittal of four archaeological interim reports for 2020 work to date. Eight archaeological interim reports and two archaeological annual reports for 2020 work are pending submission to the B.C. Archaeology Branch and Indigenous groups in accordance with *Heritage Conservation Act* permit terms and conditions. One palaeontological chance find report for 2020 will be submitted to the B.C. Archaeology Branch and the B.C. Heritage Branch.

Heritage reviews of contract documents, contractor environmental plans and construction readiness plans, as well as construction-related field inspections at archaeological sites were performed to ensure compliance. Additionally, two heritage chance finds with significance were reported, and two *Heritage Conservation Act* permit amendments were received in 2020.

2.7.4 Agricultural Mitigation and Compensation Plan Framework

As part of the Site C Agricultural Mitigation and Compensation Plan, BC Hydro has established a $20 million BC Hydro Peace Agricultural Compensation Fund to support agricultural production and related economic activity in the Peace Region. The fund is governed by a regional decision-making board made up of representatives from five regional agricultural organizations, the Peace River Regional District, three agricultural producer members-at-large and one Peace River

Valley agricultural producer. Northern Development Initiative Trust was selected as the fund administrator and is managing the investment of the funds.

In 2020, 18 Peace Region agricultural projects received approximately $400,000 in funding through the BC Hydro Peace Agricultural Compensation Fund and as of December 31, 2020, nearly $600,000 has been distributed to 24 projects. The Board established a grant budget of $750,000 for 2021.

2.8 Employment and Training Initiatives and Building Capacity Initiatives

2.8.1 Labour

To date, unions that have participated in the construction of Site C are listed in Table 7 below.

Table 7 Participating Unions

Union
Construction Maintenance and Allied Workers (CMAW)
Christian Labour Association of Canada (CLAC), local 68
Canada West Construction Union (CWU)
Construction and Specialized workers Union (CSWU), local 1611
International Union of Operating Engineers (IUOE), local 115
Millwrights Union local 2736
Ironworkers, local 97
International Brotherhood of Electrical Workers (IBEW)
MoveUP, local 378
Pile Drivers 2402
Boilermakers, lodge 359
United Association of Journeymen & Apprentices of the Plumbing & Pipefitting Industry of the U.S. & Canada, local 170
Teamsters, local 213

In addition, ten unions affiliated with the BC Building Trades will be working on the installation of the turbines and generators.

The generating station and spillways contractor have a project labour agreement for the generating station and spillways civil works with the IUOE local 115, the CSWU local 1611 and CMAW. They have also signed other agreements with the Ironworkers local 91 and the Millwrights Union local 2736 for certain scopes of work.

Further, the substation contractor has negotiated labour agreements with the IBEW for the electrical work on the Site C substation, and their civil subcontractor is signatory to CMAW. The transmission contractor is performing transmission line work on the Project and is signatory to a labour agreement with the IBEW. The Teamsters, local 213 have collective agreements with other contractors on the Project.

The labour approach for the Site C balance of plant contract will be for the contractors to retain the Construction Labour Relations Association to enter into an agreement, with the Bargaining Council of B.C. Building Trades Unions or another consortium of Building Trades Unions that covers an agreed set of labour requirements.

2.8.1.1 Labour Update on Scaled Back Activities at Dam Site due to COVID-19 Pandemic

BC Hydro continues to provide updates to key project unions on site regarding information that is being shared with workers, the latest number of people in camp in isolation, and the status of COVID-19 testing results.

With the ramp up of construction activities at site in May and June 2020, the employment numbers increased to a Project peak of 5,181 in October 2020. Specifically, the generating station and spillway contractor's three main unions have increased their membership numbers on site. The main civil works contractor unions, specifically CLAC and the CMAW carpenters, continue to advance critical Project milestones. The Teamsters, local 213 continues to have members working on site.

Workers on site who were working longer shifts for the main civil works contractor and the worker accommodation contractor in March, April, May and June 2020, returned to their regular 14 days on, seven days off schedule, with their standard wage and overtime premiums, at the end of June and beginning of July 2020.

In December 2020, the Provincial Health Officer posted an order for several large-scale industrial camps to help slow down the number of workers returning to work following the holiday season.

For Site C, the maximum number of people that can be physically working at site by late January 2021 (both at camp and locally) is approximately 1,500 people.

In early January 2021, the Provincial Health Officer updated the industrial projects Restart Order, which included the requirement for camp workers to remain in camp during their shift rotation. BC Hydro and its contractors are working with the workforce to implement this order. Exemptions are granted for work-related reasons, medical emergencies and critical appointments.

2.8.2 Employment

Contractors submit monthly workforce data electronically to BC Hydro. Table 8 presents the monthly number of construction contractors, non-construction contractors, engineers, and Project team workers for this period. As with any construction project, the number of workers — and the proportion from any particular location — will vary month-to-month and also reflects the seasonal nature of construction work.

Prior to COVID-19, BC Hydro had anticipated that 2020 would be one of the Project's peak workforce years. For the most important work months for the project (April to October), BC Hydro projected a total workforce of about 5,000 people for each of those months.

Due to the initial reduction in the workforce at site, and the subsequent gradual staged restart, these workforce numbers were not achieved. In April 2020, for

example, the Project saw a monthly workforce of only 3,029, a number not seen on the Project since June 2018.

BC Hydro slowly started ramping up the workforce on the Project in late May but did not come close to having 5,000 people working on the project until October 2020.

Table 8 Site C Jobs Snapshot Reporting Period – January 2020 to December 2020

Month	Number of B.C. Primary Residents[12]	Total Number of Workers[13]
January 2020	3,198	4,359
February 2020	3,400	4,785
March 2020	3,454	4,896
April 2020	2,133	3,029
May 2020	2,319	3,258
June 2020	3,106	4,324
July 2020	3,398	4,645
August 2020	3,478	4,804
September 2020	3,547	4,944
October 2020	3,727	5,181
November 2020	3,551	4,941
December 2020	3,173	4,428

In December 2020, 72 per cent (3,173 workers) of the workforce was made up of residents of British Columbia, while 24 per cent (880 workers) of the workforce lived in the Peace River Regional District. The on-site contractor workforce number also includes 12 per cent women (462 workers) and 160 workers who are working for various contractors as apprentice carpenters, electricians, millwrights, ironworkers, mechanics, boilermakers and heavy equipment operators.

[12] Employment numbers provided by Site C contractors and consultants are subject to revision. Data not received by the Project deadline may not be included in the above numbers. Employment numbers are direct only and do not capture indirect or induced employment.

[13] Total workers include:

- Construction and non-construction contractors performing work on Site C dam site, transmission corridor, reservoir clearing area, public roadwork, worker accommodation and services.
- Engineers and Project team that is comprised of both on-site and off-site workers.
- The Project team, which includes, BC Hydro construction management and other offsite Site C Project staff. An estimate is provided where possible if primary residence is not given.

In October 2020, the total workforce peaked at 5,181, the highest number to date since the start of construction. Throughout the year, with reduced occupancy in the worker accommodation due to COVID-19, Project contractors sought to maximize the local workforce. In October 2020, there were 1,144 workers reported from the Peace River Regional District (26 per cent of the workforce), which is a peak number for the Project.

2.8.3 Training and Capacity Building Initiatives

In September 2017, the Contractors Labour Committee agreed to establish an Indigenous labour subcommittee. The purpose of the subcommittee is to support Indigenous training, labour and employment on Site C through communication, consultation, coordination and cooperation among contractors on the Project.

The committee meets quarterly, or on an as-needed basis. All major Site C construction contractors currently attend this meeting.

The committee has developed a number of initiatives, such as:

- Established a protocol for distribution of Indigenous candidate resumes;
- Developed and implemented the Indigenous Employment and Information Day;
- Participated in the development of the BC Hydro and Northern Lights College pre-carpentry skills pilot program on the Site C Project;
- Reviewed and assisted contractors in contract reporting requirements;
- Discussed the communication of site-wide policies;
- Shared regional cultural events with Project contractors;
- Shared BC Hydro’s Indigenous Employment and Business Development employment and training initiatives;
- Reviewed contractors’ best practices;
- Shared success stories to assist in generating opportunities; and

- Reviewed Project status and upcoming labour requirements for contractors and how to meet labour demands.

BC Hydro has included apprentice targets in the generating station and spillways civil works contract, the transmission lines and the substation contracts, the balance of plant contracts and the Highway 29 work to be procured by BC Hydro, as appropriate.

In August 2013, Northern Lights College Foundation started distributing the BC Hydro Trades and Skilled Training Bursary Awards. As of December 2020, a total of 274 students had received bursaries, including 122 Indigenous students who have benefitted from the bursary in programs such as electrical, welding, millwright, cooking, social work, and many others. BC Hydro has worked with the Northern Lights College Foundation to extend the bursary timeline and reserve a portion of bursary amounts for trades programs directly needed for Project work. Part of this agreement was to set aside funds for the BC Hydro and Northern Lights College pre-carpentry skills pilot program for Site C as well as other joint pre-skills programs.

BC Hydro continues to work with local employment agencies to ensure that as job opportunities become available, they are posted on the WorkBC website as well as on the Fort St. John Employment Connections website. With the downturn in the forestry sector affecting local communities, BC Hydro worked with Ministry of Forests, Lands, Natural Resource Operations and Rural Development and their worker transition and worker displacement initiatives to assist the local community in responding to this downturn. BC Hydro’s contractors also continued to work with the local community to access available skilled and qualified workers impacted by the downturn in the forestry sector.

In December 2020, Site C contractors reported 880 workers on site from the Peace River Regional District. This is a total of 24 per cent of the construction and non-construction contractors’ workforce.

Contractor Indigenous Employment and Training information Session

In February 2020, BC Hydro hosted the fifth Contractor Indigenous Employment and Training information session in Fort St. John. The purpose of these meetings is to assist in building relationships between employment and training professionals from the Indigenous communities and key Site C contractors. BC Hydro will be virtually hosting this session again in February 2021.

Site C contractors have noted that certain trades will continue to be in high demand during peak Project construction periods. As such, in early 2020, major on-site contractors started exploring opportunities for apprentice and other training to take place on-site. BC Hydro worked with Northern Lights College and Site C contractors to develop three on-site pilot programs. The programs included a new program with Northern Lights College designed for local Indigenous candidates interested in becoming heavy equipment operators on the Site C Project, a re-launch of the Pre-Carpentry Skills Program with Northern Lights College, and a Fish Monitoring Program.

Both the pre-heavy equipment operators skills program and pre-carpentry skills program (outlined below) were postponed due to COVID-19. BC Hydro will continue to monitor the situation for an appropriate time to proceed with these programs. The BC Hydro and Northern Lights College Fish Monitoring Program was restructured and delivered off site with additional COVID-19 safety protocols and launched in August 2020. The following describes the three pilot programs:

- **Fish Monitoring Program**

  This pilot program was scheduled to commence in late spring 2020, but was restructured to an off-site program and with additional training offered online. This was successfully delivery in August 2020, with eight participants completing the program. The program included workforce training certifications in preparation for employment opportunities on the Project.

- **Pre-Carpentry Skills Pilot Program at Site C**

  This pilot program was successfully delivered in April 2019 by BC Hydro and Northern Lights College. In 2019, seven Indigenous students from this program were hired for Project work by contractors on the Project, with two students entering an apprentice program to become journeyperson carpenters. Funding for this program was also provided through the North East Native Advancing Society and donations from the Construction Maintenance and Allied Workers. The intent of this program is to provide an overview of the skills required for the carpentry trade (essential skills training), general employment knowledge (employment readiness), overview of job requirements for carpenters, knowledge of B.C.'s apprenticeship system, and Site C Project specific knowledge.

- **Pre-Heavy Equipment Operator Skills Pilot Program at Site C**

  This course focuses on preparing individuals who have prior heavy equipment operator training for employment opportunities on BC Hydro's Site C Project with its contractors. Funding for this program was to be provided through the North East Native Advancing Society and donations from the Christian Labour Association of Canada (**CLAC**), local 68.

Both the carpentry and the pre-heavy equipment operator programs were designed as 14-day programs for local new workers or workers new to the trade with preference given to local Indigenous candidates. The courses were to be partly run at the worker accommodation lodge and the 14 days were intended to reflect a typical Site C schedule.

2.9 Community Engagement and Communication

2.9.1 Local Government Liaison

There are a number of Environmental Assessment Certificate conditions that are relevant to local communities in the vicinity of the Project. BC Hydro is implementing some of these conditions through community agreements offered to five local governments. Through these agreements and discussions, BC Hydro has, in some instances, agreed to additional measures to address concerns about local community impacts from construction and operation of the Project. BC Hydro provided update emails at a frequency agreed upon with the Regional Community Liaison Committee regarding actions taken to respond to the pandemic and launched a Site C COVID-19 website for public information. Bi-weekly calls continued through 2020 with the Regional Community Liaison Committee, except for a break in August 2020, to continue to engage with local governments and Indigenous Groups in partnership with Northern Health and Emergency Management B.C.

BC Hydro has concluded four community agreements with respect to the Project: the District of Taylor (2013), the District of Chetwynd (2013), the City of Fort St. John (2016) and the District of Hudson's Hope (2017). BC Hydro and the City of Fort St. John established a Community Agreement Monitoring Committee to jointly oversee implementation of the community agreement. BC Hydro and the Peace River Regional District advanced negotiations through exchanging supporting information during this period and staff have worked to implement some of the mitigation measures for the Charlie Lake Wastewater outfall.

The Regional Community Liaison Committee, which is comprised of local elected officials and local First Nations communities, most recently met virtually on November 25, 2020. Eight local governments and four local First Nations communities (McLeod Lake Indian Band, Doig River First Nations, Saulteau First Nations and Blueberry River First Nations) as well as the two MLAs for Peace River

North and Peace River South, are invited to participate as committee members. Representatives from the Project's major contractors may also attend the meetings as invited guests.

As part of the Site C Project, BC Hydro is working with communities to provide lasting benefits for residents of the Peace Region. In 2016, BC Hydro launched the GO Fund, an $800,000 fund to support Peace Region non-profit organizations. The GO Fund is being distributed over an eight-year period to organizations that provide services to vulnerable populations including children, families and seniors.

The GO Fund is administered by Northern Development Initiative Trust on behalf of BC Hydro. In 2020, BC Hydro distributed $56,300 to seven non-profit organizations in the Peace Region and as of December 2020, nearly $500,000 has been distributed to 56 projects.

2.9.2 Business Liaison and Outreach

BC Hydro continued to implement its business construction liaison and outreach by attending local chamber of commerce meetings in Fort St. John, Dawson Creek and Chetwynd prior to COVID-19 restrictions. The Project team sent out 15 notifications in 2020, which included one notification in the final quarter of the year to the Site C business directory.

2.9.2.1 Community Relations and Construction Communications

BC Hydro continued to implement its construction communications program throughout 2020. The program includes updating and maintaining the Project website (www.sitecproject.com) with current information, and photos and videos of construction activities, and providing information to local and regional stakeholders as required.

In the first quarter of 2020, the Site C community relations team hosted one external site tour prior to COVID-19 restrictions, showing key stakeholders and local government officials how the Project is progressing.

In fall 2020, BC Hydro rerouted a short section of the Peace River during construction of the Site C Project. This resulted in permanent closures on the Peace and Moberly Rivers beginning mid-June 2020.

To move boaters around the construction area, BC Hydro has established a seasonal portage program to transport non-motorized vessels (up to 20') by road past the dam.

The program operated between the Halfway River boat launch and the Peace Island Park boat launch from May 15 to September 15, 2020, and will continue each year during the boating season.

Construction Bulletins

Bi-weekly construction bulletins continued to be issued throughout 2020. These bulletins are posted on the Project website and sent by email to the web-subscriber list. There were 25 construction bulletins and four quarterly construction notification letters issued in 2020, with six and one, respectively, distributed in the final quarter of the year.

Public Enquiries

In total, BC Hydro received 1,408 public enquiries between January 1 and December 31, 2020. The majority of these enquiries continued to be about business and job opportunities, with limited construction impact concerns from local residents. Table 9 shows the breakdown of some of the most common enquiry types.

In total, BC Hydro has received nearly 12,500 enquiries since August 2015.

Table 9 Public Enquiries Breakdown

Enquiry Type[14]	October 1, 2020 to December 31, 2020	2020
Job Opportunities	106	654
Business Opportunities	58	338
General Information	53	185
Construction Impacts[15]	21	78
Other[16]	27	153
Total	**265**	**1,408**

2.9.2.2 Communications Activities

Based on a search using the media database Infomart, there were 648 stories about the Site C Project in B.C. news media between January 1 and December 31, 2020.

2.9.3 Labour and Training Plan

In accordance with an Environmental Assessment Certificate condition, a Labour and Training Plan was developed and submitted to the Environmental Assessment Office on June 5, 2015. This plan, as well as Environmental Assessment Certificate Condition 45, includes reporting requirements to support educational institutions in planning their training programs to support potential workers in obtaining Project jobs in the future. This report was issued to the appropriate training institutions in the northeast region of B.C. in July 2016, July 2017, July 2018, July 2019 and September 2020. The next report will be issued in summer/fall 2021.

2.9.4 Human Health

2.9.4.1 Health Care Services Plan and Emergency Service Plan

The Project health clinic is contracted by BC Hydro with Halfway River International SOS Medical Ltd., a partnership between Halfway River First Nation and International SOS. The clinic continues to operate in its permanent location within

[14] This table is a sample of enquiry types and does not include all enquiry types received.

[15] The nature of the construction impact inquiries is primarily air quality, noise and traffic conditions.

[16] "Other" accounts for enquiries related to a variety of other topics, such recreation access near construction sites, property owner correspondence, or requests for site tours.

the Two Rivers Lodge and based on camp occupancy was staffed 24/7 during this period with a nurse practitioner and advanced care paramedics. BC Hydro and the clinic operator continue to liaise with the local health care community.

The clinic provides workers with access to primary and preventative health care and work-related injury evaluation and treatment services and is currently open seven days a week, 24 hours a day. Since opening the health clinic, there have been a total of 21,603 patient interactions. During the last quarter of 2020, there were 3,434 patient interactions, of which 297 were occupational and 1,137 non-occupational. Several preventive health themes were promoted to workers including: COVID-19 virus, the common cold and influenza, COVID-19 and proper mask use, and World HIV Day and HIV prevention.

3.9.5 Property Acquisitions

Throughout 2020, BC Hydro secured land rights required for the remaining highway re-alignment segments (Lynx Creek and Farrell Creek East) as well as the Hudson's Hope shoreline protection berm project. BC Hydro also successfully negotiated several land acquisitions for other Project components to enable reservoir clearing and inundation.

2.10 Key Procurement and Contract Developments

2.10.1 Key Procurement

The Site C procurement approach was approved by the board of directors in June 2012 for the construction of the Project. The procurement approach defined the scope of the major contracts and their delivery models, as summarized in Table 10 below.

Table 10 Major Project Contracts and Delivery Models

Component	Contract	Procurement Model	Anticipated Timing
Worker Accommodation	Worker accommodation and site services contract	Design-Build-Finance-Operate-Maintain	Completed
Earthworks	Site preparation contracts	Predominantly Design-Bid-Build	Completed
	Main Civil Works contract	Design-Bid-Build	Completed
Reservoir/ Transmission Clearing	Multiple reservoir clearing contracts to be awarded over seven to eight years	Design-Bid-Build	Fifteen contracts completed (reservoir 13, transmission two). Three reservoir access and clearing contract packages remain to be procured; the final number will depend on the scope of each package.
Generating Station and Spillways	Turbines and Generators contract	Design-Build	Completed
	Generating Station and Spillways Civil Works contract	Design-Bid-Build	Completed
	Hydromechanical Equipment contract	Supply Contract	Completed
	Balance of Plant Equipment Supply contracts	Supply Contracts	All 10 major equipment supply contracts completed.
	Balance of Plant – Mechanical contract	Design-Bid-Build	Request for proposals to be posted in January 2021
	Balance of Plant – Electrical contract	Design-Bid-Build	Request for proposals to be posted in March 2021
	Balance of Plant – Architectural contract	Design-Bid-Build	Request for proposals to be posted in June 2021
	Balance of Plant – Permanent Upstream Fishway and Other Out Structures	Design-Bid-Build	Request for proposals to be posted in July 2021
	Balance of Plant – Fire Detection and Protection contract	Design-Bid-Build	Request for proposals to be posted in August 2021

Component	Contract	Procurement Model	Anticipated Timing
	Balance of Plant – Heating, Ventilation and Air Conditioning contract	Design-Bid-Build	Request for proposals to be posted in September 2021
Electrical and Transmission Infrastructure	Transmission Lines Construction contract	Design-Bid-Build	Completed
	Site C substation contract	Design-Bid-Build	Completed
	Peace Canyon Substation upgrade contract	Design-Build	Completed
Highway 29 Realignment	Cache Creek West 2018 and 2020 scope of work	Design-bid-Build	Completed
	Halfway River Bridge, Grade and Paving	Design-Bid-Build	Completed
	Cache Creek East Embankment	Design-Bid-Build	Completed
	Cache Creek East Grading, Paving and Bridge	Design-Bid-Build	Completed
	Dry Creek Grading, Paving and Bridge	Design-Bid-Build	Completed
	Farrell Creek Grading, Paving and Bridge	Design-Bid-Build	Completed
	Lynx Creek West Grading, Paving and Bridge	Design-Bid-Build	Completed
	Hudson's Hope Shoreline Protection	Design-Bid-Build	Completed

2.10.2 Major Construction Contracts Exceeding $50 Million

Since inception of the Project, 10 major construction contracts have been awarded that exceed $50 million in value, as shown in Table 11.

All of the construction contracts have been procured and awarded as per BC Hydro procurement policies.

Table 11 Major Project Contracts Awarded

Work Package	Contract Value at December 31, 2020[17] ($ million)	Contract Execution Date
Site Preparation: North Bank	60	July 2015
Worker Accommodation	541	September 2015
Main Civil Works	2,584	December 2015
Turbines and Generators	464	March 2016
Transmission and Clearing	81	October 2016
Quarry and Clearing	100	February 2017
Generating Station and Spillways Civil Works	1,775	March 2018
Hydromechanical Equipment	70	April 2018
Transmission Line Construction	137	May 2018
Highway 29	381	October 2019

2.10.3 Contracts Exceeding $10 Million

For open contracts procured and awarded in excess of $10 million, refer to Appendix G.

2.10.4 Contract Management

2.10.4.1 Material Changes to the Major Contracts

The main civil works contract is a unit price contract and as such variations in quantities and design are expected over the term of the contract. Since contract award in December 2015, the main civil works contract value has increased by $837 million to reflect approved changes to December 31, 2020. This increase in contract value is primarily the result of a number of contract amendments since contract award in 2015 including two larger contract amendments, one in 2018 and the second on March 6, 2020.

A contract amendment was executed on March 6, 2020, to the main civil works contract that is retroactive to December 23, 2019, resulting in an increase to the contract value of up to $332 million over the duration of the contract, including

[17] Contract value reflects the current value including executed change orders to the end of the reporting period.

investments in equipment to reduce the schedule risk for dam construction and a series of performance-based at-risk incentives for the contractor with the objective of maintaining schedule for diversion and first power.

The generating station and spillways contract is also a unit price contract and as such variations in quantities and design are expected over the term of the contract. Since contract award in March 2018, the generating station and spillways contract value has increased by $171 million to reflect approved changes to December 31, 2020.

There are multiple Highway 29 contracts that are managed by the Ministry of Transportation on behalf of BC Hydro. Since December 31, 2019, there have been multiple contract awards that have increased the total contract value. Refer to section 2.2.1.6 for further information.

2.10.4.2 Contingency and Project Reserve Draws

Prior to scaling back work due to COVID-19, the Project was managing significant financial pressures. In addition, cost pressures related to the COVID-19 pandemic, foundation enhancements and related activities were identified, and are being assessed, monitored and managed to the extent possible. Work to re-baseline the Project began in July 2020 and continued for the balance of the year to determine the impacts on cost and schedule. The re-baselined budget is expected to include a revised contingency allowance and reserve subject to Treasury Board's discretion. Updates will be provided in subsequent progress reports.

The Project has a risk management plan that establishes the risk management framework for the Project and describes specific processes, procedures, organization, tools and systems that guide and support effective risk management. Utilizing this plan, risks are identified, assessed and managed on a continuous basis. The output of the risk management process is documented in the risk register. The risk register is utilized as an input into Project forecasts and cost risk analysis is conducted periodically to inform contingency requirements.

Refer to Appendix I for more detailed information regarding contingency and Project reserve draws.

2.11 Impacts on Other BC Hydro Operations

During 2020, the operation of system storage at Williston Reservoir (including GM Shrum and Peace Canyon powerplants) was planned to meet flow releases necessary for Site C construction and river diversion, and on October 3, 2020, river diversion was achieved. In the last quarter of 2020 after river diversion, the operation of system storage at Williston Reservoir continued to be planned to meet flow releases necessary for Site C construction.

2.12 Site Photographs

Refer to Appendix A for Site construction photographs.

3 Project Schedule

3.1 Project In-Service Dates

Work to re-baseline the Project began in July 2020 and continued for the balance of the year to determine the impacts on cost and schedule of the COVID-19 pandemic, foundation enhancements required on the right bank and other related activities. There is uncertainty with the Project's schedule and in-service date primarily due to the COVID-19 pandemic and whether the delay to the work due to the pandemic can be recovered.

Despite these challenges, the Project achieved significant milestones in 2020 including the diversion of the Peace River in October 2020, completion of the temporary fish passage facility, completion and energization of the Site C substation ahead of schedule and placing the first of two new transmission lines into service ahead of schedule, as shown in Table 12 below. The in-service dates for all units are currently under review in the re-baseline process and will be updated in subsequent quarterly progress reporting.

Table 12 In-Service Dates

Description	Final Investment Decision In-Service	Status
5L5 500 kV Transmission Line	October 2020	Complete
Site C substation	November 2020	Complete
5L6 500 kV transmission line	July 2023	On track
Unit 1 (first power)	December 2023	Under Review
Unit 2	February 2024	Under Review
Unit 3	May 2024	Under Review
Unit 4	July 2024	Under Review
Unit 5	September 2024	Under Review
Unit 6	November 2024	Under Review

3.2 Project Governance, Costs and Financing, and Risk

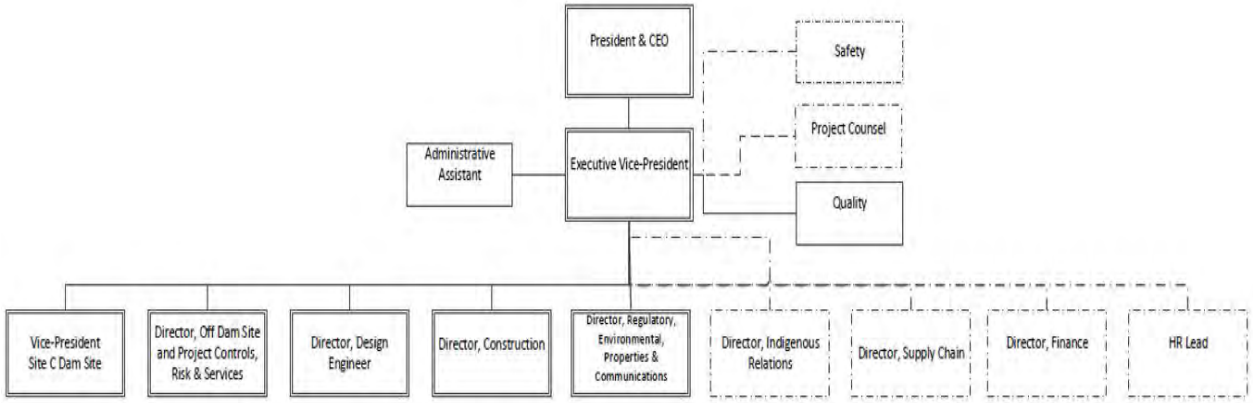
3.2.1 Project Governance

In December 2017, Government announced its approval to continue with construction of the Site C Project. The approval to proceed included increased external and internal oversight of Project performance. Refer to Figure 6 for the current organization structure. Measures to improve Project governance in 2020 include:

- EY Canada continued to provide independent oversight for the Project including budget oversight, schedule evaluation and risk assessment analysis. BC Hydro and EY Canada are working collaboratively on implementing identified opportunities for improvement;
- In July 2020, Government appointed a special advisor, Peter Milburn, to complete a review of the Project that included a review and assessment of the governance and reporting structure in place for the Project;
- BC Hydro completed cost and schedule risk analyses in 2020. During these analyses BC Hydro worked collaboratively with EY Canada and continues to implement identified enhancements. Please refer to Table 18 for more information;

- An Independent Construction Advisor retained by the Project Assurance Board continued to provide advice and opinions on construction planning by major contractors at the dam site;
- The Site C Project Assurance Board commissioned a further independent due-diligence review to assist it in its evaluation of the technical integrity of the proposed mitigation measures on the right bank and ensure they meet the safety and reliability standards of the Canadian Dam Association;
- The Technical Advisory Board met numerous times through 2020; and
- BC Hydro continued to increase the number of on-site representatives to effectively manage the construction contracts.

Figure 6 Project Organizational Structure



3.2.2 Project Budget Summary

As a result of the change in timing for river diversion and other factors including an increase in direct and indirect costs, a revised cost estimate of $10.7 billion for the Project was approved by the board of directors in February 2018.

Prior to scaling back work due to COVID-19 in March 2020, the Project was managing significant financial pressures. In addition, significant cost pressures related to the COVID-19 pandemic, foundation enhancements and related activities have been identified, and are being assessed, monitored and managed to the extent

possible. Work to re-baseline the Project budget and schedule began in July 2020 and continued for the balance of the year. An updated table of the overall project budget will be provided in subsequent quarterly progress reporting.

3.3 Project Expenditure Summary

Table 13 provides a summary of the February 2018 budget and the actual costs for the calendar year 2020 and the variance between the two.

Table 13 Project Expenditure Summary ($ million Nominal) Compared to 2020 Budget

Description	Budget for Calendar 2020	Actuals for Calendar 2020	Variance
Project	1,334	1,764	(430)
Treasury Board Reserve	0	0	0
Total	**1,334**	**1,764**	**(430)**

Table 14 provides a summary of the 2021/23 Service Plan and the actual costs for the calendar year 2020 and the variance between the two.

Table 14 Project Expenditure Summary ($ million Nominal) Compared to 2021/23 Service Plan

Description	2021/23 Service Plan Calendar 2020	Actuals for Calendar 2020	Variance
Project	1,594	1,764	(170)
Treasury Board Reserve	-	-	-
Total	**1,594**	**1,764**	**(170)**

Details of the variances between actual and plan are in Table 16.

3.4 Comparison of Cost Plan by Quarter to Actual Expenditures (F2020 Q4 to F2021 Q3)

Table 15 Cost Plan for the Reporting Period: January 2020 to December 2020

($ million Nominal) Compared to 2018 Budget

Description	F2020 Q4	F2021 Q1	F2021 Q2	F2021 Q3	Total for Reporting Period
Planned Expenditures	280	342	339	373	1,334
Actual Expenditures	436	355	507	466	1,764
Variance	**(156)**	**(13)**	**(168)**	**(93)**	**(430)**

Table 15 above presents a comparison of the planned total expenditures by quarter based on the 2018 budget with the actual expenditures. Over the entire reporting period, actual expenditures were $430 million more than plan, primarily due to acceleration of main civil works to meet river diversion; contractor incremental costs to comply with COVID-19 requirements; higher-than-planned costs for highways and quarry work; turbines and generators activities and debris management work originally planned for 2019 but occurring in 2020; and higher than planned worker accommodation expenditures. These are partially offset by generating station and spillways work slowdown to essential work due to COVID-19 earlier in the year; main civil works embankment, dam and core buttress and spillways buttress work behind schedule; and property acquisition delays due to highway re-alignment.

Table 16 Cost Plan for the Reporting Period: January 2020 to December 2020 ($ million Nominal) Compared to 2021/23 Service Plan

Description	F2020 Q4	F2021 Q1	F2021 Q2	F2021 Q3	Total for Reporting Period
Planned Expenditures	371	392	415	416	1,594
Actual Expenditures	436	355	507	466	1,764
Variance	**(65)**	**37**	**(92)**	**(50)**	**(170)**

Table 16 above presents a comparison of the planned total expenditures by quarter per the Service Plan with the actual expenditures. Over the entire reporting period, actual expenditures were $170 million more than plan, primarily due to: acceleration of main civil works to meet river diversion; contractor incremental costs to comply with COVID-19 requirements; higher than planned costs for highways and quarry

work; debris management work originally planned for 2019 occurring in 2020; and higher than planned worker accommodation expenditures. These were partially offset by generating station and spillways work slowdown to essential work due to COVID-19 earlier in the year; main civil works embankment, dam and core buttress and spillways buttress work behind schedule; and timing differences for turbines and generators activities.

3.5 Internal Project Financing versus External Borrowings to Date

To date, all Project funding has been from internal borrowings and there has been no Site C Project-specific debt issued. As part of BC Hydro's debt management strategy, BC Hydro's exposure to variable debt is managed within a board-approved range of five per cent to 25 per cent and a target of 15 per cent. In addition, since fiscal 2017, BC Hydro has hedged $10 billion of its future forecast long-term debt issuances through the use of derivative contracts to lock in interest rates. Updates to BC Hydro's debt management strategy as a result of the re-baselined budget will be discussed in future quarterly progress reporting.

3.6 Material Project Risks

Material Project risks are identified and reviewed on an ongoing basis. As the Project progresses through implementation phase, the material Project risks will evolve to reflect the current risks facing the Project.

Refer to Table 17 below for a list of the material Project risks as of December 31, 2020.

Table 17 Material Project Risks

Risk Description	Impact and Response Plan Summary
Risk that COVID-19 event impacts continuation of construction activities at site or in Vancouver.	**Impact**: BC Hydro and contractors do not have access to the required labour for daily construction and project management activities. BC Hydro and contractor costs increase to respond to COVID-19 and schedule delay impacts; camp capacity reduction and/or shutdown due to COVID-19 outbreak. **Response**: Gradual phased approach to ramp up work; screen workers before they travel to site and at site before entry; implement camp mitigation measures (additional cleaning, closed cafeteria self-serve stations, establish isolation wings); put in place BC Hydro and contractor worker protection exposure protocols and plans.
Risk that the Project cannot attract and retain sufficient skilled workers.	**Impact**: Contractors may not be able to adequately source, supply, attract, and retain sufficient project labour due to workforce demographics, increased competition for labour from other major projects, the requirement for specialized workers, and the effects of COVID-19. This may result in potential impacts to schedule, safety, productivity and cost. **Response**: Contractors provide labour sourcing and supply plans, provide advance notice of foreign workers, and participate in local job fairs. BC Hydro encourages and facilitates capacity building initiatives and monitors employee turnover rates and labour conditions on other projects.
Risk of additional work to meet approach channel, powerhouse and spillway roller-compacted concrete stability buttress requirements.	**Impact:** Increased costs for investigation and design changes and schedule changes. **Response**: Finalize engineering investigations and analysis; complete right bank foundation redesign to increase stability and prepare cost estimate.
Risk that dam or approach channel is not completed on time for reservoir inundation.	**Impact:** Schedule delay results in missing inundation seasonal window; inundation occurs in following year. **Response**: Closely monitor/expedite contractor work and progress to minimize impacts to seasonal work and the inundation milestone; include schedule lag time for minor delays; manage work interfaces between contractors.

Risk Description	Impact and Response Plan Summary
Risk that increased interest rates (market interest rates, government credit rating changes, etc.) & expenditure timing increases borrowing costs.	**Impact**: Rising interest rates increase the Project's interest costs above the amount budgeted. **Response**: BC Hydro has hedged interest rates on approximately 75 per cent of future debt placements through Fiscal 2025 to reduce the potential impact of rising interest rates.
Risk of a contractor defaulting on their contract during construction.	**Impact**: Bankruptcy of contractor or withdraw from project, resulting in project delays and cost increases. **Response**: Robust capacity evaluation during procurements; step-in rights in contracts; performance security; monitor creditworthiness of parent companies who have provided guarantees.
Risk that Project pays contractors labour market increase above baseline.	**Impact:** Increased labour market pressures could result in industry benchmark agreements exceeding the contracted baseline, resulting in Project cost increases. **Response**: BC Hydro has included provisions in the major contracts that allow for labour escalation to a prescribed amount, as well as a cost/savings sharing formula based on industry benchmark agreements changing above or below the prescribed amount.
Risk of a safety incident resulting in fatality or disabling injury.	**Impact:** Serious worker injury or fatality; project delays and associated costs. **Response**: Continue with BC Hydro and contractor safety steering committee to address shared safety issues and opportunities; BC Hydro and contractors have implemented safety cultural leadership training; increase BC Hydro executive involvement and engagement with site safety leadership; regularly hold on site safety conferences; continue to include safety in BC Hydro and contractor on boarding orientations; and continue to promote a strong safety culture.
Risk of additional expenditures required for engineering support for the Project.	**Impact:** Exceed budget due to work required for as-found site conditions, complete design, and support schedule and construction activities; insufficient resources to complete, manage and/or oversee engineering work. **Response**: Optimize BC Hydro resources; optimize work front team structure and minimize duplication of activities. Work with contractors to increase their quality control staffing.
Risk that spillway costs increase materially due to design changes.	**Impact**: Design changes result in higher construction costs. **Response**: Proactively working with the contractor to manage impact through working meetings. Where and when possible, design is reviewed and revised to reduce impact while maintaining original design intent.

Risk Description	Impact and Response Plan Summary
Risk that Indigenous groups do not support the Project.	**Impact:** Indigenous groups file legal challenges (e.g., injunction applications) or engage in protest actions that could delay or stop the project work and/or increase costs. **Response**: Project team to continue to engage and consult with First Nations and ensure commitments to First Nations are met or exceeded; fully support the development of legal response documents; follow court order requirements, if applicable; continue to negotiate Impact Benefit Agreements.
Risk that reservoir clearing progressed designs and market conditions increase costs.	**Impact**: Increased cost. **Response**: Start procurement process early; utilize collaborative approach; review design and constructability with proponent; negotiate pricing; involve BC Hydro Indigenous Relations team; and engage alternate clearing contractors if agreement cannot be reached.
Risk of the stage 2 cofferdam overtopping or erosion.	**Impact**: Damage to upstream and downstream cofferdams; uncontrolled river flow; flooding and damage to dam and powerhouse while under construction. **Response**: Clear reservoir area before river diversion and install debris structures; utilize Williston reservoir to provide water storage; complete river flow forecasting and manage water.
Risk of insufficient aggregate supply to meet demand on dam site.	**Impact**: Decreased productivity, schedule delays and increased cost that could impact multiple contracts. Aggregate supply required for concrete production (roller compacted concrete, cast in place concrete/conventional vibrated concrete and shotcrete) and dam (general fill, filter materials, drain material, and riprap). **Response**: Increase aggregate stockpiles; work with contractors to minimize waste and maximize aggregate production; release site contingency aggregate excavation sites and seek out additional aggregate on site sources; procure off site and haul in additional aggregate.
Risk that the river has been diverted but the stage 2 cofferdam is not completed on time.	**Impact**: Unable to release restrictions upstream; overtopping of the cofferdam; construction delays; BC Hydro system (GM Shrum generation, etc.) impacts. **Response**: Contractor performance incentives in place to meet milestone dates; contractor increases work force; BC Hydro and contractor evaluate schedule and optimize activities.
Risk of differing geotechnical conditions resulting in design changes to the earthfill dam.	**Impact**: Observed foundation conditions differ from geological model. **Response**: Excavate shear key downstream of the right bank core trench to improve stability based on updated geology. Additional instability is not expected based on modelling; however, monitor earthfill dam during construction in case unfavorable conditions manifest. Install additional instrumentation to ensure adequate coverage of the dam. If there is a change in pore pressures inconsistent with the engineering design parameters, we would add rock fill to stabilize the dam rather than pause construction.

Risk Description	Impact and Response Plan Summary
Risk that the balance of plant and equipment supply contracts are higher than budgeted.	**Impact**: Increased cost **Response**: Update and review cost estimate for the balance of plant and equipment supply contracts. Understand key drivers of cost increases and identify potential mitigation options to reduce costs. Delay of award and start date to mitigate COVID-19 impacts.
Risk of increased BC Hydro Construction Management. resources required for contractor oversight.	**Impact**: Costs exceed approved budget; potential increase in contractors claims (delays and rework); poor quality; environmental or safety incidents. **Response**: Proactively identify resourcing requirements and fill positions in timely manner that aligns with site work/contractor activities.
Risk of powerhouse, intakes and spillway completion delay.	**Impact**: Generating station and spillways late handover to main civil works to complete approach channel. Generating station and spillways contractor delay claims. **Response**: Increase contractor productivity; increase work in winter periods and pay validated COVID-19 impact claims.
Risk of increased BC Hydro site resident engineers required to review contractors work.	**Impact**: Labour and contactor costs exceed control budget. **Response**: Closely evaluate labour costs, expenses and vacancies; reforecast costs; seek contingency draw.
Risk of contractor claims.	**Impact**: Increased construction management and contract management effort required to respond and investigate claims; settlement of claims may result in increased costs. **Response**: Ensure sufficient commercial management resources in place, proactively resolve claims as received, and ensure commercial management procedures are in place.
Risk of earthfill dam construction delays due to instrumentation installations.	**Impact**: Earthfill dam is delayed awaiting the installation of instruments; Instruments are non-functional and/or damaged. **Response**: Close oversight of the main civil works contractor's current effort to self-perform work; main civil works contractor refining/training personnel and drilling techniques/equipment; communicating to main civil works contractor the importance of instrumentation and scheduling to mitigate delays.
Risk that there are geotechnical issues in areas other than the dam, left bank tunnels and right bank roller compacted concrete buttresses.	**Impact:** Potential schedule delay and additional costs. **Response:** Complete geotechnical investigations prior to construction commencing; close monitoring and quick intervention to manage construction risk if geotechnical issues arise.

4 Look ahead – January 2021 to December 2021

4.1 Construction

The following is a look ahead of activities planned to take place in 2021:

4.1.1 Key Milestones

Work to re-baseline the Project began in July 2020 and continued for the balance of the year to determine the impacts on cost and schedule of cost pressures related to the COVID-19 pandemic, foundation enhancements required on the right bank and other related activities. There is uncertainty with the Project's schedule and in-service date primarily due to the COVID-19 pandemic and whether the delay to the work due to the pandemic can be recovered. An updated table of key milestones for 2021 will be updated as part of this process and information will be provided once finalized.

4.1.2 Main Civil Works

In the upcoming year, the focus of the activities for the main civil works scope of work will shift from preparing diversion infrastructure (which is now complete) to construction of the remaining roller-compacted concrete buttresses, approach channel, and main earthfill dam.

The stage 2 cofferdams, the final major diversion assets, need to be completed prior to the spring freshet. On February 15, 2021, the upstream stage 2 cofferdam was completed. Once the pile wall on the downstream cofferdam was complete, the area between the upstream and downstream cofferdams began to be dewatered, including the implementation of fish salvage activities, and the excavation of the centre section of the dam core trench can commence. Following the dewatering and excavation works, initial placements of the dam core material will be completed.

On the left bank, completion of the curtain and consolidation grouting in the core trench will be completed in advance of dam fill placement on the left bank.

On the right bank, the remaining roller compacted concrete will be placed for the dam and core buttresses. This work will be sequenced with the placement of dam fill in the core and shell of the dam on the right abutment. Approach channel excavation is scheduled to commence mid-2021 and will continue throughout the year.

Other works that are to be completed in the upcoming year include: re-installation of the Peace River debris boom prior to freshet, operation of the temporary upstream fishway, and transportation of material from the 85th Avenue Industrial Lands to site via the conveyor system.

4.1.3 Right Bank Foundation Enhancements

Within the spillway, piling could commence as early as the summer and continue throughout the second half of 2021. At the powerhouse, work will start with an excavation within the powerhouse tailrace prior to the start of piling as early as the fall of 2021.

Within the approach channel, excavation of overburden and bedrock is continuing under the main civil works contractor's scope for approach channel construction. Once excavation is completed, the foundation of the channel will be prepared prior to the commencement of lining, grouting and the installation of drain holes.

To support all of this work, additional instrumentation will be installed within the bedrock below and around the approach channel to allow for enhanced monitoring both during construction and the ongoing operation of the dam.

4.1.4 Generating Station and Spillways

Over the next year, there are many key activities planned for the generating station and spillways. These activities include:

- Powerhouse: complete all first stage concrete, enclose the complete powerhouse, and embed the turbine components in accordance with the schedule;

- Intakes: complete first stage concrete for all intakes except Unit 4; the remaining work will primarily be work associated with gate installation and intake 4 completion;
- Penstocks: complete all penstock steel except Unit 4; and
- Spillways: place 120,000 cubic metres of concrete in the spillways, resulting in the spillways being 50 per cent complete.

4.1.5 Balance of Plant

Over the next year, the six balance of plant contracts will go through the planned procurement processes and contractors will start to mobilize to site in the fall 2021.

4.1.6 Turbines and Generators

The contractors' factory in São Paulo, Brazil will continue production of the turbine runners, headcovers, stayrings and wicket gates, and will continue with fabrication of the generator components including stator, rotor, windings, and stator laminations. Over the next year, design, procurement and manufacturing is expected to be completed for the turbines and generators contract. The turbines and generators contractor will continue to fabricate the large turbine-embedded parts at a temporary manufacturing facility on-site, including the draft tube cone and elbow, and the spiral case, and is expected to be completed by summer 2021.

Based on the powerhouse construction schedule, the contractor will continue with installation of turbine components in the powerhouse.

4.1.7 Transmission and Substation

All foundations and towers will be installed for the second transmission line. Stringing of the conductors will begin.

4.1.8 Highways and Hudson's Hope Shoreline Protection Berm

Construction of all Highway 29 segments will be underway and will continue throughout 2021.

Construction of the Halfway River Bridge will be substantially complete in 2021.

Construction of the Hudson's Hope shoreline protection berm will continue in 2021.

Production of all riprap and berm fill materials required for 2021 will be produced at Portage Mountain Quarry, starting in May 2021 and completed by September 2021.

4.1.9 Reservoir

Clearing design work will continue in 2021 for the western reservoir. Two additional contract packages will be procured and awarded in 2021 with the aim of having the reservoir substantially cleared by March 2022. The design of shoreline contouring work will continue through 2021 and the construction for the relocation of the 1L364 transmission line will start.

4.1.10 Worker Accommodation

BC Hydro will continue to assess if there will be an impact to the worker accommodation lodge bed requirements in 2021 and 2022 due to the uncertainty associated with the progression of the COVID-19 pandemic. Initial modelling suggests that there will be an increase in the forecast peak capacity required in 2021 and 2022 as a result of the reduction in the forecast peak capacity required in 2020.

4.1.11 Engineering

The engineering team will continue to provide technical and construction support to the Project through 2021, and will focus on to the achievement of the contractor's schedule for the main civil works contract, the generating station and spillways civil works contract, and the commencement of the balance of plant contracts. Further, the engineering design team will continue to advance the implementation design for the generating station and spillways civil works contract including the commencement of record drawings in accordance to the current Project requirements, and the balance of plant work package with issuance of all six subcontracts. Also, integration and review of the large cranes, hydromechanical, and turbine and generators will be ongoing throughout 2021.

Key areas on the main civil works contract will be supported including the ongoing construction of the earthfill dam, the final placements for the roller-compacted concrete dam buttress, and additional support on an as-needed and when-required basis for all other work activities required to achieve the Project schedule.

With respect to the Highway 29 re-alignment, activities will include the continued technical support for the construction activities.

The engineering team will continue to provide the Technical Advisory Board with Project and construction updates through 2021.

In the year ahead, both the structural enhancements in the spillways and powerhouse foundation, and enhancements to the water-tightness of the approach channel will be advanced to final design, to allow detailed cost estimating and scheduling to be carried out. Once available, detailed cost and schedule information will be utilized to assess alternate commercial strategies for the delivery of the work, and construction will commence.

4.2 Quality Management

In 2021, the quality management team will continue to work with suppliers and contractors to ensure they are satisfying their obligations with regards to quality control of their work. Important areas of focus will include leveraging technology to remotely participate in manufacturing factory acceptance tests, monitoring the materials testing laboratories at the site, and collating quality documentation for completed work(s) to facilitate handover of work areas and the transition between construction and commissioning.

4.3 Safety and Security

Safety priorities for 2021 include a focus on safety hazard identification and mitigation strategies for construction of the earthfill dam, the right bank foundation enhancements, and continued build-out of the generating facilities (intakes, penstocks, powerhouse, headworks and spillways). Additionally, the turbines and

generators contractor has mobilized into the powerhouse, and balance of plant contractors will be onboarding to the Project later in the year. BC Hydro will continue to focus on its Contractor Safety Program, ensuring current and new contractors are fulfilling their safety responsibilities including safety verifications, prime contractor audits and incident investigations.

4.4 First Nations Consultation

Efforts will continue in 2021 to conclude Impact Benefit Agreements with the remaining First Nation communities who do not yet have agreements. In addition, BC Hydro will continue to consult with respect to the construction stage of the Project, and to work with Indigenous groups to prepare communities for reservoir inundation and Highway 29 realignment.

4.5 Permits and Government Agency Approvals

Permits and licences are required for various construction activities to be undertaken in 2021. Approximately 46 permit applications are anticipated to be submitted for approval in this time frame as well as three Environmental Assessment Certificate amendment requests related to contingency hauling of material from 85th Avenue Industrial Lands to the dam site area by truck (during conveyor breakdown / maintenance periods); the location of the eastern reservoir boat launch; and the use of a borrow site for material for construction of the earthfill dam.

Delays to these permits, licences or amendments may result in delays to the associated construction work. However, BC Hydro continues to consult with federal and provincial authorities, local government and First Nations communities to mitigate this risk and does not anticipate delays that will impact construction schedules. Specific actions to mitigate risk to permits and licences include:

- Early identification and submission of permit and licence applications through consultation with contractors (e.g., weekly meetings with main civil works contractor on permits/permitting plan);

- Weekly meetings with Ministry of Forests, Lands, Natural Resource Operations and Rural Development on permitting process, technical details and consultation status;
- Bi-weekly meetings with the Environmental Assessment Office;
- Leave to Commence Construction scoping meetings with the Comptroller of Water Rights, Independent Engineer, and Independent Environmental Monitor (and contractor, as appropriate);
- Weekly meetings and monthly on-site visits (as allowed given current COVID-19 protocols) with BC Hydro, the main civil works contractor, Independent Engineer and Independent Environmental Monitor regarding Leave to Construct approvals;
- Joint development of permitting dashboards between the Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Comptroller of Water Rights and BC Hydro to track permit risks and develop mitigation measures; and
- Proactive key stakeholder and First Nations community consultation on Environmental Assessment Certificate condition amendment requests.

4.6 Environment

Site environmental monitoring and survey work will continue through 2021. The Project team will continue to collaborate with Indigenous groups, stakeholders and regulators to ensure BC Hydro is adhering to the environmental conditions of both the Environmental Assessment Certificate and Federal Decision Statement and any other permits or authorizations.

On-site compliance resources continue to perform daily inspections and to work with the on-site contractors to ensure environmental compliance. Inspectors will continue to focus on the areas of sediment and erosion control, water management, hydrocarbon spill prevention and will increase focus on wildlife attractant

management. Additionally, as new contractors mobilize to site, the site staff are working closely to ensure an immediate focus on environmental compliance.

Furthermore, experts in wildlife mitigation and fish and aquatic mitigation will continue to collect field data and install wildlife mitigation features, such as bat and fisher houses, snake dens, course woody debris piles, and other habitat features as the work progresses and to undertake enhanced wildlife identification and monitoring in the headpond area.

4.7 Community Engagement and Communications

Ongoing focus on community engagement will continue through virtual presentations and virtual events.

The Regional Community Liaison Committee will continue to meet at least three times to discuss Project progress and areas of community interest. Site C public affairs will continue to promote local and B.C. business participation on the Project by encouraging businesses to sign up to the Site C Business Directory to receive information about the Project and notifications about procurements; posting procurement information on the Project website; and providing a copy of the Site C Business Directory to proponents during the competitive selection process to encourage partnering with local businesses.

The Site C public affairs team will attend virtual business and chamber of commerce meetings in Fort St. John, Dawson Creek, Chetwynd and Prince George. In addition, Project update virtual presentations will be provided to various organizations as opportunities arise. Discussions will continue with the Peace River Regional District to reach a community measures agreement.

4.8 Property Acquisitions

Over the next year, BC Hydro will continue the property acquisition efforts for the remaining highway re-alignment segments and portions of the middle and western reservoir clearing projects. BC Hydro will also continue negotiations with private property owners that will be impacted by reservoir inundation and preliminary impact lines.

4.9 Cost Plan by Quarter F2021 and F2022

As noted, work to re-baseline the Project began in July 2020. As a result, the annual cost plan by quarter for calendar 2021 is not yet finalized at this time. The annual cost plan by quarter will be provided when the re-baseline process is complete, and the updated Project budget is approved.

4.10 Material Project Risks

Risk management is an ongoing, iterative process. As documented in the Site C Risk Management Plan, the ongoing risk management activities include risk identification, risk analysis and evaluation, risk response planning, and risk monitoring and control. Over the next year, the Project's risk registers will be regularly updated to identify new risks, refine risk evaluations and treatment plans, and monitor mitigation activities.

5 Risk and Cost Management Assessment Summary and Independent Oversight

Since 2018, EY Canada has provided independent oversight for the Project, including budget oversight, schedule evaluation and risk assessment analysis. Table 18 provides a summary of the EY findings, recommendations and BC Hydro actions undertaken in 2020.

Table 18 EY Findings, Recommendations and BC Hydro Action Plan from 2020

Area	EY Recommendation	BC Hydro Action Plan
Cost Risk Analysis	Cost Risk Analysis models will be based on the risk register rather than the Cost Pressure and Watch List.	An updated Cost Risk Analysis process has been implemented and additional fields added to the risk register.
Risk Management	Comprehensive identification of all risks to the end of the Project.	Risk reviews will be held to continue to ensure all risks to the end of the Project are captured and documented.
Risk Management	Pre-mitigation and post-mitigation cost impacts should be captured and documented for all risks.	Risk reviews will continue to be held to ensure all pre-mitigation and post-mitigation impacts are captured and documented.
Risk Management	Robust basis of estimate for all probabilities and impacts (must include updated estimates and justification for change).	Risk reviews to continue to be held to ensure all basis of estimates for all probabilities and impacts are robust.
Risk Management	All risks with a strategy of 'mitigate' must have an associated plan that includes costs, responsibilities, and monitoring mechanisms.	Plans to be reviewed and updated to include costs, responsibilities and monitoring mechanisms for all risks with a strategy of 'mitigate'.
Schedule Risk Analysis	Risk register to include schedule impacts associated with each risk.	Schedule impact and schedule impact details fields to be added to the risk register. Once fields are available, values will be populated.
Schedule Risk Analysis	Opportunities and threats identified through the Schedule Risk Analysis process should be communicated to project managers and risk professionals in the appropriate forum and fed back into the risk register.	Schedule information to be populated in the risk register.
Schedule Risk Analysis	More rigorous documentation of the schedule data gathering sessions and incorporation of input to the basis of estimates for probabilities and durations.	Risk reviews to continue to be held with additional focus on reviewing the quality of supporting documentation and to ensure it is sufficient.
Schedule Risk Analysis	A post-mitigated scenario is to be run to objectively assess the schedule benefit of identified opportunities relative to their cost to implement.	Post-mitigated scenario to be included in future Schedule Risk Analysis's.
Schedule Risk Analysis	Approved contractor schedules, or contractor input, should be in place to support the new baseline and the next iteration of the Schedule Risk Analysis.	Contractor schedules or other supporting schedule and/or discussion will be incorporated into the new performance measurement baseline.
Other	The Site C team continues to implement recommended improvements in the risk management process to make it as efficient as possible and to drive a risk management culture within the Project.	Implement the risk management improvements identified above.
Other	The Site C team continues to develop a new schedule that incorporates input from both the work package managers and contractors. The schedule will then form the new baseline along with the approved budget.	Develop a performance measurement baseline with input from both work package managers and contractors.

Area	EY Recommendation	BC Hydro Action Plan
Other	That the cost estimates continue to be refined as the impact of COVID-19 is better understood and the scope of the right bank foundation enhancements is better defined through on-going engineering efforts and the completion of the technical review by the two Project Assurance Board appointed experts.	Refine the COVID-19 and right bank foundation enhancement estimates.
Other	Reserve items are closely monitored, particularly until new contractor schedules are in place, and the ongoing impacts of COVID-19 are better known.	Closely monitor reserve items
Other	That a special committee is formed, possibly containing a sub section of Project Assurance Board members, to review claims and support the Site C team in further developing their commercial strategy and increasing the commercial expertise available to the Project	Develop a commercial management plan that considers governance and the appropriate experience and skills required for the team. Implement any actions resulting from this plan. Investigate creating a special committee to review claims.
Other	That the likelihood and impact of the assumptions that underpin the new cost estimate and proposed budget are further analyzed as part of the risk management process.	Implement the risk management improvements identified above.
Other	That the Cost Risk Analysis and Schedule Risk Analysis are reported on a more frequent basis.	In calendar 2021, implement the quarterly preparation of the Cost Risk Analysis and Schedule Risk Analysis.
Other	A cashflow analysis should be produced using the new schedule to better understand how the increased budget will be spent in a four-year period, and assess if the required resources (labour, material, plant, accommodation, etc.) will be available to meet the new schedule.	Review the new performance measurement baseline and associated cash flows.
Other	With the development of a new schedule and ultimately integrated master schedule, the earned value process used for reporting and monitoring performance should be reviewed for possible areas of improvement.	Review the earned value process for possible opportunities for improvement.

6 Project Objective

The strategy being employed on the Site C Project related to balancing the Project objectives of scope, quality, schedule, and cost is shown in Figure 7, and is as follows:

- First, safely implement the Project scope, consistent with the quality specifications; in other words, do not compromise on the safety of structures and the workforce, scope or quality. BC Hydro is building Site C for the long-term, and it does not make sense to undermine the quality of the asset;
- Second, mitigate schedule risk and build schedule float. The rationale for this is due to the significant impacts associated with missing the reservoir inundation schedule milestone. There is a relatively narrow window to complete reservoir inundation, and if that window is missed, the Project could be delayed by up to one year. As a result, the Project team has completed several activities to increase schedule float to further reduce the risk of missing reservoir inundation when unplanned events occur that delay the schedule; and
- Third, complete the Project at the lowest reasonable cost.

BC Hydro's goal is to achieve all of these objectives. However, as unplanned events occur, they put pressure on meeting all of the Project objectives, and the Project team has utilized the above strategy to balance how best to meet these objectives.

Figure 7 Site C Project Objective

7 Technical Advisory Board

The Technical Advisory Board is a global panel of engineering and construction experts that report to the Project Assurance Board. Its mandate includes:

- Advising the Executive Vice President, the President, Chief Executive Officer and the Site C Project Assurance Board regarding the engineering and technical decisions related to Project design consistent with best practices and current international guidelines;
- Provide technical review of key design milestones and ongoing external advice to supplement existing engineering and design and procurement expertise;
- Report out to the Project Assurance Board and management following each meeting and provide a report of key findings and recommendations; and
- Prepare and submit technical reports as required to management and the board of directors.

The 21st Technical Advisory Board meeting occurred in early January 2020 with a focus on diversion planning, reviewing the design team's recommendations for final design for the dam and core roller-compacted concrete buttress, foundation grouting, earthfill dam review and the recommendations regarding the requirements for foundation enhancements for the spillways and powerhouse roller-compacted concrete buttresses. An additional report 21A was issued in April 2020 to report on the progress on the foundation enhancements. Two additional Technical Advisory Board meetings took place in 2020 including the 22nd Technical Advisory Board meeting in May 2020 and the 23rd Technical Advisory Board meeting in October 2020.

Refer to Appendix D for reports on Technical Advisory Board activities in 2020.

8 Annual Compliance Report

As per the Environmental Assessment Certificate, the Project is required to submit an annual compliance report describing the status of compliance with the conditions of the certificate. To date, the Project has met all required conditions and submitted its third annual compliance report on time on March 31, 2020, which can be found in Appendix F.

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Site C Clean Energy Project

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(Combined with Quarterly Progress Report No. 20)

Appendix A

Site Photographs

Figure A-1 A concrete placement takes place at the intake area of the powerhouse (January 2020)

Figure A-2 Penstock construction of units 1, 2 and 3 (January 2020)

Figure A-3 **Piles are being installed across the Moberly River to catch floating debris during river diversion. Debris booms will also be installed across the Moberly River, as well as the Peace River (February 2020)**

Figure A-4 **The completed inlet structure for diversion tunnel No. 2 stands 30.5 metres, or nearly 10 stories high (February 2020)**

Figure A-5 Aerial view of the diversion tunnel inlet portals. The tower structures house the mechanical gates required to control water flows into the tunnels (February 2020)

Figure A-6 Aerial view of the diversion tunnel outlet portals and the temporary fish passage facility under construction (February 2020)

Figure A-7 **Dam core trench excavation on the north bank is nearing completion (February 2020)**

Figure A-8 **Preparing the pile extensions for the Moberly River debris boom structures (February 2020)**

Figure A-9 **Moberly River piles are cut to final elevation, filled with concrete and tarped to maintain adequate temperature during the curing process (February 2020)**

Figure A-10 **An aerial view of the Moberly River pile structure under construction. This structure, in combination with a debris boom, will be used to capture debris floating in the river (February 2020)**

Figure A-11 Construction of Cache Creek East embankment, as part of Highway 29 realignment (March 2020)

Figure A-12 An expansion of the Site C worker accommodation lodge is underway. These wooden cribs are installed to prepare for the 450-bed camp expansion. The existing lodge is in the background (March 2020)

Figure A-13 The completed piles structure, located at the mouth of the Moberly River (April 2020)

Figure A-14 This slope has been flattened to remove excess material to ensure stability and will be the future left bank of the earth fill dam (April 2020)

Figure A-15 A view from inside one of the two recently completed diversion tunnels (May 2020)

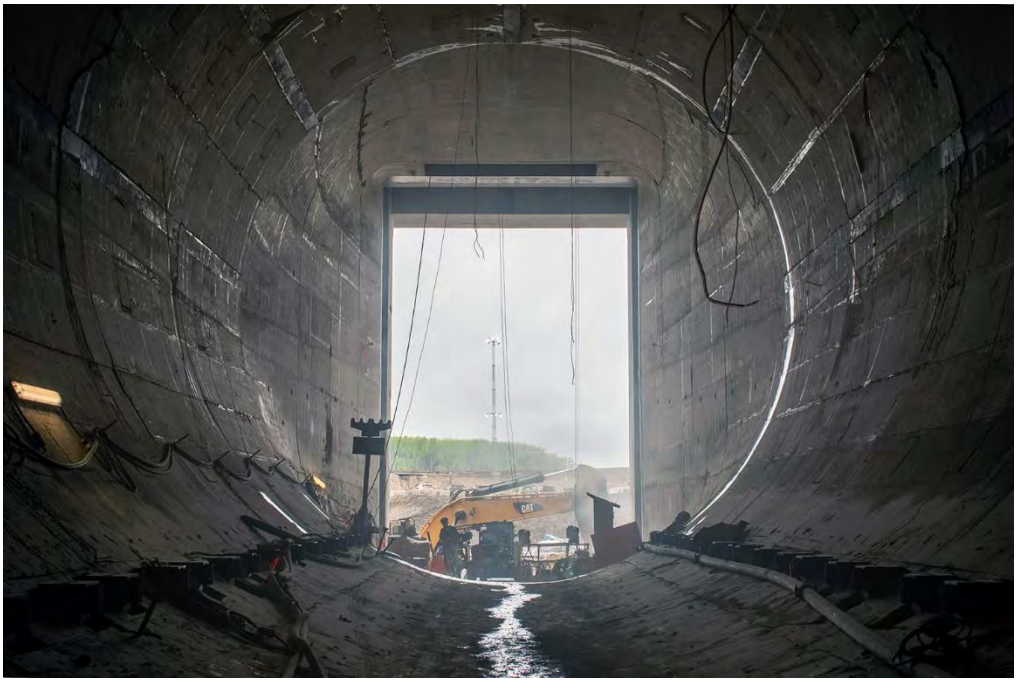

Figure A-16 North bank overview of the completed diversion tunnel inlets (May 2020)

Figure A-17 The completed diversion tunnels outlet portal on the north bank and temporary fishway nearing completion (May 2020)

Figure A-18 The Site C worker accommodation lodge expansion added 450 new beds (May 2020)

Figure A-19 View of the Site C substation down the transmission line right-of-way with the completed tower installations (May 2020)

Figure A-20 Highway 29 realignment work at Lynx Creek (June 2020)

Figure A-21 In-river construction begins at the dam site, to prepare for river diversion in the fall (June 2020)

Figure A-22 Upper bend of the unit 3 penstock (June 2020)

Figure A-23 View of the spillway headworks, stilling basin, intakes, penstocks and powerhouse (June 2020)

Figure A-24 Workers connect a transformer for the Peace Region Electrical Supply (PRES) system - located at the Site C substation (June 2020)

Figure A-25 Artificial snake dens are built with rocks and soil to reduce the effects of the Site C Project on garter snakes (July 2020)

Figure A-26 Roadway embankment construction upstream of Dry Creek (July 2020)

Figure A-27 **A specialized excavator dredges and deepens the approach channel to the diversion tunnels (August 2020)**

Figure A-28 **A worker inspects a gate in a diversion tunnel as part of wet testing ahead of river diversion in (August 2020)**

Figure A-29 Dam core materials from the 85th Avenue Industrial Lands are transported by a conveyor system to the dam site (August 2020)

Figure A-30 Aggregate is stockpiled for the Highway 29 realignment at Lynx Creek West (August 2020)

Figure A-31 The completed toe berm of the Lynx Creek East Highway 29 segment (August 2020)

Figure A-32 The completed Cache Creek East embankment on Highway 29 (August 2020)

Figure A-33 The helicopter completes the sock line installation on a free standing 500 kilovolt transmission tower near the Peace Canyon switchyard (August 2020)

Figure A-34 Debris booms are in position upstream of the inlet portal to help manage woody debris in the Peace River (August 2020)

Figure A-35 Filling the inlet cofferdam in preparation for the diversion tunnel gates leakage testing (August 2020)

Figure A-36 The new Halfway River Bridge, with nine of 12 piers under construction (September 2020)

Figure A-37 Removing the inlet portal cofferdam (September 2020)

Figure A-38 Overview of the left bank core trench excavation (September 2020)

Figure A-39 On October 3, 2020, the final rock materials were placed to complete the rockfill berm, initiating full diversion of the Peace River (October 2020)

Figure A-40 The transport pod is loaded onto a truck to take fish upstream of the dam site to be released back into the Peace River and its tributaries (October 2020)

Figure A-41 The Peace River flows out of the diversion tunnels near the temporary fish passage facility (blue building) (October 2020)

Figure A-42 The first steel girder was installed at the Halfway River Bridge on November 18, 2020 (November 2020)

Figure A-43 Workers attach a bald eagle nest structure to an 18-metre-long pole. (November 2020)

Figure A-44 A penstock piece is lowered into place as part of the penstock installation for Unit 2 (November 2020)

Figure A-45 The first turbine runners arrive in Prince Rupert from São Paulo, Brazil (December 2020)

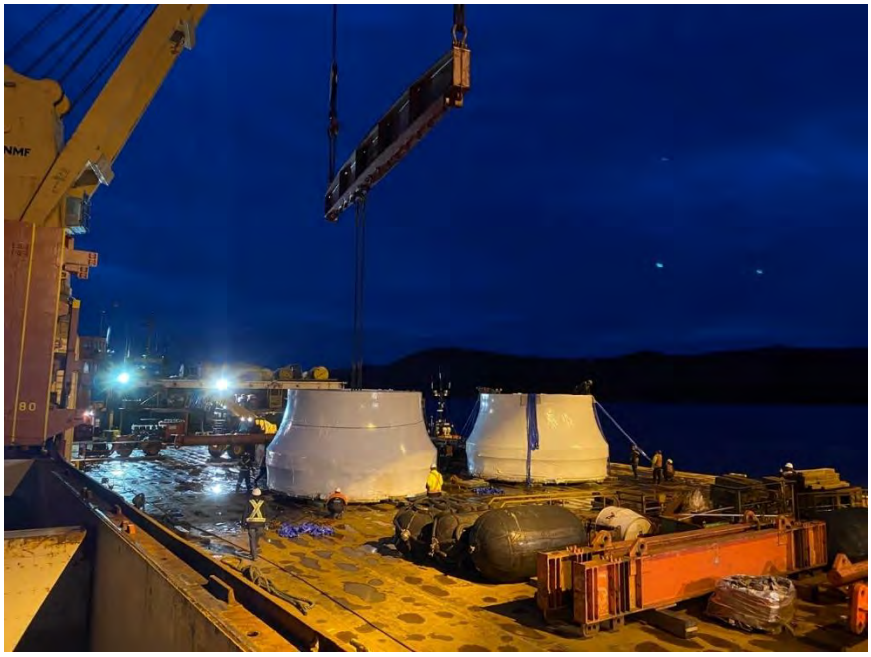

Figure A-46 An aerial view of the Highway 29 Farrell Creek alignment and work area where construction is continuing on the new highway and bridge (December 2020)

Figure A-47 An aerial view of the south bank dam core trench looking north across the diverted Peace River (December2020)

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Appendix B

Safety and Security

Serious Safety Incidents

In 2020, the Project reported a total of 21 serious safety incidents consisting of seven near misses, and 13 injuries which either required medical attention or had the potential to be a serious injury.

The 21 serious incidents that occurred during 2020 include:

1. During hydrostatic pressure testing on a 40-foot pipe, the plug on the pipe released then struck the worker. The worker injured their hip.
2. A shotcrete operator changed direction while spraying shotcrete in the diversion tunnel and the shotcrete travelled through a gap in the tarp barrier and contacted another worker's eyes.
3. A group of carpenters were tasked with cutting a notch in a plywood form to install a water stop. In order to make the cut, some of the rebar support ties were loosened. As they were cutting the plywood vertically, the horizontal rebar began to lean sideways causing the rebar wall to collapse.
4. An eight-inch diameter hose fell from a crane at the Moberly piles construction site and hit a worker.
5. Two workers were performing shotcrete chipping activities in the diversion tunnel outlet 1 area, without a proper silica exposure control plan in place.
6. A worker was performing welding activities in the powerhouse unit 1 area and did not have proper local exhaust ventilation at the source of the welding.
7. Two construction workers working at the Halfway River Bridge were seriously injured when the bridge pier rebar material they were climbing on failed.
8. A telehandler operator left the cab while another worker was in the person basket. During this time, the telehandler began rolling down a slope causing the worker in the basket to sustain minor injuries.

9. A piece of scaffolding fell from height and struck a worker in the lower back.
10. Three baseball sized rocks entered the front window of the cab of an excavator, with two rocks contacting the operator in the chest and one rock narrowly missing their head.
11. Workers failed to secure and lock out a rotary drill before attempting to manually correct a misalignment of the two-metre long drill rod, causing a hand laceration.
12. A piece of plywood strip fell from a 50-foot tower and struck a worker's back.
13. The cable sock of a crawler crane failed as it passed over the shiv at the boom tip, causing an 80-foot-long auxiliary hoisting line to fall to the ground.
14. Crane operator lifted a dump box and started to trolley over a walkway where a worker had to stoop down to avoid the dump box contacting them.
15. Worker was observed climbing down a formwork tied off using two spectra slings connected together with a carabiner as an anchor connector.
16. An approximately 35-pound E-beam dropped from a height of 10 feet and fractured a worker's foot.
17. While an aerial work platform was lifting into the air, it caught a dolly's handle causing the dolly to drop from 80 feet.
18. A worker slipped while pushing a dolly, which then landed on their leg and resulted in a fractured tibia.
19. A worker cut their finger while using a skill saw.
20. A worker fell approximately 33 feet onto an elevated concrete platform at the intakes to the powerhouse. The worker was cutting holes in the plywood decking to allow shoring tower columns to be added. The worker suffered a broken leg and shoulder.

21. A worker slipped and fractured their fibula while exiting from a dozer.

All Injury Incidents

The 57 injury incidents that occurred during 2020 include nine lost-time injuries (sustained in the eight incidents listed below) and 49 medical attention injuries. Some of the serious safety incidents listed above may have also resulted in a lost-time injury or medical treatment.

Lost-Time Injuries

1. A shotcrete operator changed direction while spraying shotcrete in the diversion tunnel and the shotcrete travelled through a gap in the tarp barrier and contacted another worker's eyes.
2. A worker was exiting their pickup truck when they slipped on ice, lost their footing and injured their knee.
3. A worker tore their bicep while assisting with lowering a fuel hose and nozzle after refuelling a dozer.
4. A worker was exiting their pickup truck when they slipped on ice, lost their footing and fractured their foot.
5. A sizable piece of square tubing fell on top of a worker's hardhat. The worker suffered a concussion.
6. Two construction workers working at the Halfway River Bridge were seriously injured when the bridge pier rebar material they were climbing on failed.
7. A worker fractured their finger when a ratchet jumped gears, abruptly causing the finger to be pinched between the ratchet handle and jump bolt.
8. A worker fell approximately 33 feet to an elevated concrete platform at the intakes to the powerhouse. The worker was cutting holes in the plywood

decking to allow shoring tower columns to be added. The worker suffered a broken leg and shoulder.

Medical Attention Requiring Treatment

1. During the hydrostatic pressure testing on a long 40-foot pipe, the plug on the pipe released and then struck the worker. The worker injured their hip.
2. A worker pinched their finger when a tool slipped. The worker suffered a laceration.
3. A worker tripped over a sandbag and had a laceration on their chin.
4. A worker felt discomfort in their eye while chipping shotcrete.
5. A worker felt discomfort in their eye after cleaning in the coupling chamber.
6. A worker moving the robot track in penstock 1 injured their shoulder.
7. A worker removing trailer load securement straps chipped a tooth.
8. A worker tripped over some wood and had a laceration on their leg.
9. An oxygen bottle fell on a worker's leg.
10. A worker felt discomfort in their eye after grinding work.
11. A worker removing lumber received a splinter to their hand.
12. A worker felt discomfort in their eye after grinding work.
13. A worker's tool slipped and pinched their finger. The worker suffered a laceration.
14. A worker slipped climbing on a ladder and dislocated a thumb.
15. A worker felt discomfort in their eye after grinding work.
16. A worker experienced discomfort to both of their eyes due to welding flash burn.

17. A worker was heating a steel nut in a tight area and burned their fingers.
18. A worker's tool slipped and pinched their finger. The worker suffered a laceration.
19. Workers failed to secure and lock out a rotary drill before attempting to manually correct a misalignment of the two-metre long drill rod, causing a hand laceration.
20. A worker slipped on ice and injured their back and shoulder.
21. A worker slipped on ice and fractured their wrist.
22. A worker cut their finger while using a cable insulation knife.
23. A worker was stepping down out of the vehicle and rolled their ankle.
24. A worker cut their finger while using a skill saw.
25. A worker cut their hand while using a table saw.
26. A worker's tool slipped and cut their lip.
27. A piece of plywood strip fell from a 50-foot tower and struck a worker's back.
28. A grading blade of an excavator contacted and fracture a worker's foot.
29. A tie wire punctured worker's arm.
30. A water hose contacted a worker's mouth.
31. Foreign object in worker's eye.
32. Mud and debris sprayed in worker's face.
33. An approximately 35-pound E-beam dropped from a height of 10 feet and fractured a worker's foot.
34. Foreign object in worker's eye.
35. Foreign object in worker's eye.

36. A metal banding contacted a worker's eye.
37. Worker received fiberglass splinters in their hand.
38. A worker slipped while pushing a dolly which then landed on their leg and resulted a fractured tibia.
39. A rebar dowel contacted a worker's nose.
40. A worker slipped and injured their hand.
41. A worker injured their foot while operating a high-pressure wash wand.
42. A worker injured their back while driving over a pothole.
43. Foreign object in worker's eye.
44. A worker slipped and fractured their fibula while exiting from a dozer.
45. A worker slipped and fractured their ribs.
46. A heavy-duty haul truck mud flap slipped and fractured a worker's toe.
47. A worker's finger was caught in toolbox latch.
48. A worker slipped and injured their back and arm.
49. A worker strained their groin while moving heavy objects.

Safety Performance Frequency Metrics

Figure B-1 below provides information on Employee and Contractor Serious Incidents/Near Miss Frequency, Lost-Time Injury Frequency and All Injury Frequency as at December 31, 2020.

Figure B-1 Employee and Contractor Serious Incidents/Near Miss Frequency, Lost-Time Injury Frequency and All Injury Frequency

Regulatory Inspections

Table B-1 below lists the Regulatory Inspections and Orders received by the Project from January 2020 through December 2020.

Table B-1 Regulatory Inspections and Orders

WorkSafeBC

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #1: WorkSafeBC conducted an inspection as a result of an incident that presented a high risk of serious injury to a worker. The order cited in this report is to address items, noted at the workplace that need attention prior to conducting more pressure testing work activities the contractor right bank shop location. The work practices reviewed on location to pressure test the water pipe fabrication and assembly of the fishway water conveyance system equipment did not include restraint of the mechanical plug components prior to and/or during the performance of the pressure test work.			
Low Risk	Restraining devices	**Order #1 – OHS 12.15(b)**: Effective means of restraint must be used if unplanned movement of an object or component could endanger a worker.	January 3, 2020
Inspection #2: WorkSafeBC contacted the contractor via telephone as a result of a reported incident that presented a risk of an injury to a worker. The incident occurred during the fueling operations at the left bank office fuel island. The worker stepped off an approximately 6-inch to 8-inch platform onto a snow-covered area. Minor injury was reported by the contractor.			
Low Risk	Slipping and tripping hazards	**Order #1 - OSH4.39(1):** Contractor failed to maintain a state of good repair and free of slipping and tripping hazards on floors, platforms, ramps, stairs and walkways that are available for workers to use.	January 9, 2020
Inspection #3: WorkSafeBC conducted an inspection on the concrete formwork activities taking place at the time. The inspection was also conducted as part of the 2018-2020 Construction High Risk Strategy (CHRS). The focus of planned and target inspection opportunities were in three main areas: • Health & safety responsibilities (planning and oversight) • Tools, equipment and processes (choosing the safest option) • Partnerships and collaborations (messaging and communicating)			
		No Orders	January 11, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #4: WorkSafeBC conducted an inspection on the concrete formwork activities taking place at the fishway, inlet and outlet portal structures in the left bank cofferdam area. The inspection was also conducted as part of the 2018-2020 Construction High Risk Strategy (CHRS). The focus of planned and target inspection opportunities were in three main areas: • Health & safety responsibilities (planning and oversight) • Tools, equipment and processes (choosing the safest option) • Partnerships and collaborations (messaging and communicating) Topics discussed with the prime contractor were in regard to concrete formwork at the worksite which include but not limited to: Concrete formwork, engineering, and inspection.			
		No Orders	January 11, 2020
Inspection #5: WorkSafeBC conducted an inspection as a result of an incident that involved an injury to a worker. This incident resulted from a shotcrete pump tunnel lining operation and change in direction of spray performed by the shotcrete pump operator. This change in direction inadvertently caused the spray to contact a worker on the other side of the hoarded in area at the tunnel entrance. Emergency response was initiated on location.			
		No Orders	January 11, 2020
Inspection #6: WorkSafeBC conducted an inspection at the left bank diversion tunnel construction area on the general work activities taking place at the time of inspection which included mobile equipment operation, formwork installation, concrete preparation/placement, and scaffold erection. Washroom facilities: a visual inspection of the temporary washroom facilities provided to the workers for use at the left bank diversion tunnel work location appeared to be generally maintained in a manner that ensured proper working order and clean sanitary conditions were observed. It was also noted that the washroom facilities are monitored and maintained during the extreme cold temperatures (-30 C to -45).			
		No Orders	January 16, 2020
Inspection #7: WorkSafeBC conducted an inspection on a pile driving operation. The subcontractor has been contracted to fabricate, construct and install the Moberly River debris pilings for a prime contractor.			
Low Risk	Respirators	**Order #1 - OHS8.32(b):** The contractor failed to ensure a worker was using an appropriate respirator where the worker might be exposed to welding fumes at the workplace.	January 20, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #8: WorkSafeBC contacted the contractor via telephone as a result of a reported incident that resulted in a non-occupational fatality of a worker.			
		No Orders	January 20, 2020
Inspection #9: WorkSafeBC conducted a site inspection of the gravity fishway area. Safety items discussed in the office included procedures and policies for working in close proximity to high voltage (25 kV) lines with heavy equipment such as a crane and excavator. A site visit was conducted at the fishway area to inspect the crane working in close proximity of the 25 kV overhead lines, electrical distribution and cable management.			
		No Orders	February 11, 2020
Inspection #10: WorkSafeBC conducted a site inspection at the phase 2 crusher and material conveyance and included review of the employer's current lock out policies, workers training, instructions and overall implementation of written procedures to safety de-energize/lock out equipment prior to maintenance and/or cleaning activities.			
		No Orders	March 17, 2020
Inspection #11: WorkSafeBC conducted an inspection on the workers accommodation sewage treatment facilities. During the inspection, the discussion included exposure to blood borne pathogens and body fluids and human waste, mold, hazardous materials notices of projects, COVID-19 and safe access.			
High Risk	Exposure control plan	**Order #1 - OHS6.34(1):** The contractor did not develop and implement an exposure control plan for blood borne pathogens and body fluids.	March 19, 2020
Low Risk	Vaccination	**Order #2 - OHS6.39(3):** The contractor failed to provide or offer at no cost to all workers subject to the hazard, vaccinations related to work at the camp and associated activities such as sewage treatment.	
High Risk	Access to work areas	**Order #3 - OHS4.32:** The contractor failed to provide a safe way of entering and leaving each place where work is performed, and a worker must not use another way, if the other way is hazardous.	

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #12: WorkSafeBC conducted an inspection on the general employer policy, procedures and training implemented at site. During the inspection, the health and safety items that were discussed but were not limited to: • Workplace violence program • Workplace conduct policy • Reporting process • Investigation procedures • Orientation and training practices			
		No Orders	March 20, 2020
Inspection #13: WorkSafeBC conducted a site visit to verify and discuss the implementation of COVID-19 control measures.			
		No Orders	April 8, 2020
Inspection #14: WorkSafeBC conducted a phone engagement with the contractor to verify compliance with the Occupational Health and Safety Regulation and the Workers Compensation Act related to the contractor's management of COVID-19 and its workplaces.			
		No Orders	April 14, 2020
Inspection #15: WorkSafeBC met with the contractor at the site for the purpose of reviewing crystalline silica sampling results. The results indicated that the silica levels were higher than allowed. The contractor clarified that the workers are all wearing full face respirators and local exhaust ventilation are installed on the equipment that produces dust.			
		No Orders	April 15, 2020
Inspection #16: WorkSafeBC reviewed the contractor's Notice of Project (849667) for compliance.			

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Low Risk	Notice of project – hazardous substances	**Order #1 - OHS20.2.1 (4):** Upon review of the submission it was noted that the contractor provided two different styles of work procedures that were not for mould infestations of 100 sq./ft or greater but were for much smaller infestations. The procedures submitted did not meet G4.79. The contractor hazardous materials survey did not acknowledge that mould is a hazardous substance. The moulds found are risk group 2 human pathogens and such are hazardous substances.	May 13, 2020
Inspection #17: The purpose of this WorkSafeBC inspection is to review with the contractor's response to the current COVID-19 pandemic in relation to worker health and safety at the workplace. A COVID-19 safety plan must include policies, guidelines, and procedures to reduce the risk of COVID-19 transmission in the workplace. The contractor must involve frontline workers, joint health and safety committees, and supervisors in identifying protocols for their workplace. A guide to reducing the risk of COVID-19 which outlines the following six steps: 1. Identify where COVID-19 exposure arises in the workplace and assess the risks, 2. Implement control measures/protocols to reduce the risks, starting with the highest level of protection and moving down as appropriate, 3. Develop policies that include your protocol, 4. Develop communication plans and training on the policies, 5. Monitor policy implementation and update policy as needed, and 6. Assess and address risks related specifically to resuming operations.			
		No Orders	May 28, 2020
Inspection #18: WorkSafeBC conducted an inspection on injury management. The items discussed during a phone conversation and site visit with the generating station and spillways contractor representatives were as follows: • Incidents management • Injury management • Hazard awareness • Skip, trip and falls			
		No Orders	May 28, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #19: In May 2020, there were several meetings held with WorkSafeBC personnel to discuss water gate testing as it relates to confined space and underground workings. Through these meetings it was determined that the work process does not meet the definition of underground workings and falls within confined space requirements referred under Section 9.18 of Occupational Safety and Health Regulation and Professional Engineer Certification. The work activity is described as a single point of isolation within a confined space adjacent to the underground workings by means of the proximity to the left bank diversion tunnels, it seems reasonable to conclude that the work on this Project is not an underground workings and the work being performed is confine space and assessments to be conducted by the contractor.			
		No Orders	June 1, 2020
Inspection #20: The purpose of this WorkSafeBC inspection is to review with BC Hydro's response to the current COVID-19 pandemic in relation to worker health and safety at the workplace. A COVID-19 safety plan must include policies, guidelines, and procedures to reduce the risk of COVID-19 transmission in the workplace. The contractor must involve frontline workers, joint health and safety committees, and supervisors in identifying protocols for their workplace. A guide to reducing the risk of COVID-19 which outlines the following six steps: 1. Identify where COVID-19 exposure arises in the workplace and assess the risks, 2. Implement control measures/protocols to reduce the risks, starting with the highest level of protection and moving down as appropriate, 3. Develop policies that include your protocol, 4. Develop communication plans and training on the policies, 5. Monitor policy implementation and update policy as needed, and 6. Assess and address risks related specifically to resuming operations.			
		No Orders	June 3, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #21: In May and June 2020, there were several meetings held with WorkSafeBC personal in relation to underground working (completion), removal of description (Part 22), and define as permanent facilities in their final structural condition of the left bank diversion tunnels as per certification by the professional engineer. G22.2(2) Application of Part 22 (Underground workings) This guideline discusses the circumstances, under section 22.2 of the Regulation, in which an underground working can be a permanent facility in its final structural condition as certified by a professional engineer. Application of the Regulation to an underground project that has been completed If an underground working has been completed under the terms of section 22.2(2), Part 22 no longer applies, but the other requirements of the Regulation remain in effect to address any subsequent work that may be done at the site. Examples of such work include operation of underground control devices, use of worker transport systems, and equipment or facility inspections, maintenance, and repair. Applicable requirements will include those of Part 9 (confined spaces) for work in any space that meets the definition of a confined space in section 9.1 of the Regulation.			
		No Orders	June 9, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #22: WorkSafeBC conducted an inspection as a result of an incident that presented a high risk of serious injury to a worker. On June 17, 2020, at approximately 15:16 hours after maintenance activity has been completed, the operator walked the tracked excavator equipment on the access road located at the 85th Avenue Industrial Lands till conveyor site and subsequently contacted the communication cable and severed the neutral wire to the 3 phase 25kV high voltage overhead lines. The order cited in this report are to address items, noted at the workplace, that need attention prior to conducting more work within limits of approach of high voltage conductors at the 85th Avenue Industrial Lands till conveyor area, and work practices / procedures noted on site.			
High Risk	Electrical safety	**Order #1 - OHS19.24:** The contractor failed to ensure before a person starts work close to high voltage electrical equipment or conductors that are exposed or that might become exposed during work at a workplace, the person must be informed of (a) the existence, location and voltage of the high voltage electrical equipment and conductors, and (b) the work arrangements and procedures to be followed to ensure compliance with this Part.	June 17, 2020
High Risk	Electrical safety	**Order #2 - OHS19.24.1:** The clearance distance from exposed electrical equipment and conductors set out in column 1 of table 19-1A was not maintained for excavator equipment at the workplace.	
Low Risk	Electrical safety	**Order #3 - OHS19.25(6):** The assurance is not known to all persons with access to the area.	
Low Risk	Coordination of multiple employer workplace	**Order #4 - OHS20.3(1):** This construction project involved the work of two employers and their workers and the employer did not notify the prime contractor, in advance that created a hazard for a worker of another employer.	

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Low Risk	Reporting unsafe conditions	**Order #5 - OHS3.10:** A person observed what appeared to be an unsafe condition and has failed to report it as soon as possible to a supervisor and has failed to ensure that any necessary corrective action was taken without delay.	
Low Risk	Escape from a cab	**Order #6 - OHS16.17(1)(a):** The excavator equipment alternative means of escape was located on the same surface as the cab entrance door.	
Inspection #23: The purpose of this inspection is to review the contractor's response to the current COVID-19 pandemic in relation to worker health and safety at this workplace. The contractor produced a COVID-19 safety plan that is posted in the worker lunchrooms and other segments at the Site C location. The list of measures, protocols, and policies is extensive. Workers must complete a daily evaluation containing COVID-19 related questions before they are allowed on location. Workers are not allowed to enter the work site if they do not pass the evaluation or are ill and must isolate for 14 days if they have symptoms of COVID-19. In order to reduce the risk of transmission through surface contact, the contractor hired a third-party contractor to fog the building interiors with disinfectant on a weekly basis. Hand sanitizers and extra wash stations with soap and running water have also been installed to reduce the risk of transmission. In order to promote physical distancing, plexiglass cubicles were installed in the lunchrooms to provide a physical barrier between the workers when eating. The urinal space in the washrooms did not allow for physical distancing so the contractor responded by temporarily taking two of the four urinals out of service to all for the two-metre spacing. In situations where is it not possible to keep two metres, such as two people per vehicle for example, bandanas or masks must be worn. In order to inform the workers about COVID-19, the contractor used signs, posters, TV monitors and verbal communication to educate. The workers are visually monitored by supervisors to ensure the measures in place are implemented.			
		No Orders	July 9, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #24: WorkSafeBC conducted an inspection at the carpentry shop located at R6 of the Site C work location. During the inspection, the officers focused on safeguarding on the equipment, machines, and tools that were inspected by the WorkSafeBC officers and discussed with the contractors. - BOGE C-25N air compressor - Makita mitre saw - Large portable fan - Grizzly band saw - Bosch table saw - Dust collection system			
		No Orders	July 9, 2020
Inspection #25: WorkSafeBC conducted an inspection at the carpentry shop located at the Site C work location. An all terrain telehandler lift truck was on site and in service on the day of the inspection. The telehandler has a telescopic boom that can extend or retract. This particular telehandler had forks attached to the boom for lifting items such as lumber. When asked by WorkSafeBC, the operator stated there are no work platform used in the carpentry shop.			
Low Risk	Escape from a cab	**Order #1 - OHS16.17(1)(d):** The contractor failed to ensure the telehandler used by the operators on location is equipped with a secondary means of escape from the cab that is well marked and can be opened from both inside and outside of the cab without the use of a glass breaking tool.	July 9, 2020
Inspection #26: WorkSafeBC conducted an inspection after a crane hoisting incident occurred on August 15, 2020. The workplace consisted of a pile driving operation located at the right bank upstream cofferdam area. The main civil works prime contractor contracted a subcontractor to install approximately 700 interlocking piles which form the base section of the earth filled portion of the hydroelectric dam and related construction activities at the right bank cofferdam area.			
Low Risk	Crane general	**Order #1 - OHS14.34**: The contractor failed to ensure the crawler crane operator has a valid operator's certificate.	August 19, 2020
High Risk	Crane general	**Order #2 - OHS14.37.1**: The operator of the crawler crane failed to have full control of the equipment controls whenever the hoisting equipment is use and was engage with other duties while operating the equipment.	

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
High Risk	Crane general	**Order #3 - OHS14.16.1(2)**: The contractor failed to remove the crawler crane from service until a professional engineer has certified safe for use.	
High Risk	Crane general	**Order #4 - OHS14.15(1)**: The crawler crane has not been maintained as specified by the manufacturer's or approved by a professional engineer.	
Low Risk	Supervising workers	**Order #5 - WCA21(2)(e)**: The contractor failed to provide the workers with adequate information, instruction, training and supervision to ensure the health and safety of those workers in carrying out their work.	
Inspection #27: WorkSafeBC conducted an inspection on Crane C - Provincial Tower Crane Inspection Initiative. During this inspection WorkSafeBC and the contractor reviewed and discussed the collection of documentation relating to this tower crane including engineering certifications and reports.			
		No Orders	September 21, 2020
Inspection #28: WorkSafeBC conducted an inspection on Crane 8 - Provincial Tower Crane Inspection Initiative. During this inspection WorkSafeBC and the contractor reviewed and discussed the collection of documentation relating to this tower crane including engineering certifications and reports.			
		No Orders	September 21, 2020
Inspection #29: WorkSafeBC conducted an inspection on Crane C - Provincial Tower Crane Inspection Initiative. During this inspection WorkSafeBC and the contractor reviewed and discussed the collection of documentation relating to this tower crane including engineering certifications and reports.			
		No Orders	September 21, 2020
Inspection #30: WorkSafeBC conducted an inspection on Crane 8 - Provincial Tower Crane Inspection Initiative. During this inspection WorkSafeBC and the contractor reviewed and discussed the collection of documentation relating to this tower crane including engineering certifications and reports			
		No Orders	September 21, 2020
Inspection #31: WorkSafeBC conducted an inspection on Crane 5 - Provincial Tower Crane Inspection Initiative. During this inspection WorkSafeBC and the contractor reviewed and discussed the collection of documentation relating to this tower crane including engineering certifications and reports and the erectors written report.			

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
		No Orders	September 24, 2020
Inspection #32: WorkSafeBC conducted an inspection on Crane 6 and 7 - Provincial Tower Crane Inspection Initiative. During this inspection the contractor describe some of the elements of their crane maintenance program. WorkSafeBC were at the crane storage / maintenance yard to observe the parts and components of two tower cranes that are undergoing inspections and maintenance prior to assembly at the work site in the next month.			
		No Orders	September 24, 2020
Inspection #33: WorkSafeBC conducted an inspection to review the main civil works contractor's response to the current COVID-19 pandemic in relation to work health and safety at the workplace. 1. Plan work to allow physical distancing (workers spaced at least two metres apart). 2. Provide sufficient soap and water or hand sanitizers and post the locations to encourage workers to wash their hands frequently. 3. WorkSafeBC is not requiring workers to wear masks when they cannot maintain physical distancing, but it is an option for employers to consider as part of their preventative measures for their workplace within the hierarchy of controls. 4. Enhance cleaning and disinfecting of the workplace, particularly high contact items such as handrails, doorknobs, shared tools or equipment and washroom facilities. 5. Workers who are displaying symptoms must go home and self-isolate.			
		No Orders	October 07, 2020
Inspection #34: WorkSafeBC conducted an inspection on the general work activities in the fishway sorter operations, energy isolation, safeguarding of equipment, rescue practices and river diversion. 1. ERP - Swift water 2. Silica dust control 3. Person basket 4. Overhead crane operations 5. De-energization and lockout 6. Safeguarding (fish crowder) 7. Special inspections			
		No Orders	October 07, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #35: WorkSafeBC conducted an inspection on the roller-compacted concrete and conventional concrete) batch plants and cold weather aggregate heating activities associated with the sauter hot water heating (HWS 1000) systems. During the inspection, the health and safety items that were discussed but were not limited to: - Equipment operation: the maintenance and safe operations manuals were located within the contained hot water heating unit and secondary copies were said to be available at the control centre (office) - Qualifications: trained operators and verification completed by employer. The employer employs power engineers to interact with the hot water heating systems on location - Inspection practices: Informal daily visual inspections conducted. Power class engineers perform checks as per manufacturer. - Maintenance schedule: routine maintenance; third party inspections, equipment maintenance and repairs completed by a subcontractor			
		No Orders	October 19, 2020
Inspection #36: WorkSafeBC conducted an inspection to review BC Hydro Site C's response to the current COVID-19 pandemic in relation to work health and safety at the workplace. 1. Plan work to allow physical distancing (workers spaced at least two metres apart). 2. Provide sufficient soap and water or hand sanitizers and post the locations to encourage workers to wash their hands frequently. 3. WorkSafeBC is not requiring workers to wear masks when they cannot maintain physical distancing, but it is an option for employers to consider as part of their preventative measures for their workplace within the hierarchy of controls. 4. Enhance cleaning and disinfecting of the workplace, particularly high contact items such as handrails, doorknobs, shared tools or equipment and washroom facilities. 5. Workers who are displaying symptoms must go home and self-isolate.			
		No Orders	October 23, 2020
Inspection #37: Generating station and spillways contractor contacted WorkSafeBC as a result of a reported incident that presented a risk of injury to a worker. This crane to crane contact incident involved tower crane 7 (TC7) and tower crane 5(TC5) for generating station and spillways headworks/intake construction at the BC Hydro Site C. A preliminary determination to the cause has been stated that TC7 and TC5 were operating in the overlapping zone, when TC5 slewed causing the trolley tip pully to make contact with TC7 outer load line resulting in minor damage. The cranes involved in the incident were removed from service pending a further review of the incident, formal inspection and re-certification by third-party engineering firm deeming the cranes safe for use.			

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
High Risk	Crane general	**Order #1 - OHS14.29(1)**: A load must not contact a structural member of a crane or hoist and a structural member of a crane or hoist must not contact any building, bridge, or other crane or any other structure, fixture or improvement.	November 2, 2020
Inspection #38: WorkSafeBC attended the workplace as a result of an incident that presented a high risk of serious injury of a worker. The incident resulted from a fall from elevation when an ironworker had been aligning a structural steel member (brace) to a previously erected steel column. The ironworker was positioned at elevation standing on two I-beam flanges and while in the process of aligning the connection with a spud wrench, it slipped causing the momentum to shift to the worker resulting in the worker being subjected to a fall. The workers fall was arrested by the personal fall protection gear worn at the time. No injuries were reported.			
High Risk	Employee training	Order #1 - OHS11.2(6): The contractor failed to ensure that the worker was instructed in the fall protection system for the generating station and spillways powerhouse steel structure and the procedures to be followed.	November 24, 2020
Low Risk	Safety equipment	Order #2 - OHS11.10(a): After a fall protection system has arrested the fall of a worker, it must be removed from service.	
Low Risk	Work platform	Order #3 - OHS20.4(1): Where practicable, suitable ladders, work platforms and scaffolds meeting the requirements of Part 13 (ladders, scaffolds and temporary work platforms) must be provided for and used by a worker for activities requiring positioning at elevations above a floor or grade	
Inspection #39: WorkSafeBC attended the workplace as a result of an incident that involved the serious injury of a worker. The incident resulted from an ~12 metre (40ft) fall from elevation of a worker at the generating station and spillways - Power intake Unit 1 structure while accessing a previously installed formwork shoring deck in order to cut openings to accommodate the next phase of falsework/formwork installation of the shoring tower equipment.			
High Risk	Fall protection	Order #1 - OHS11.2(1)(a): The contractor did not ensure that a fall protection system has been used to access and perform work activities at the power intake Unit 1 structure incident location.	November 25, 2020

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
High Risk	Worker training	Order #2 - OHS11.2(6): The contractor did not ensure that the worker was instructed in the fall protection system for the Power Intake Unit 1 structure incident work area and the procedures to be followed.	
High Risk	Fall protection plan	Order #3 - OHS11.3(1)(a): The contractor failed to have a written fall protection plan for a workplace if work is being done at a location where workers are not protected by permanent guardrails, and from which a fall of 7.5m (25ft) or more may occur.	
High Risk	Work platforms	Order #4 - OHS4.59(1): The contractor failed to ensure a pit or other opening in a floor, walkway, roof or other area accessible to workers, which is a danger to works, are securely covered with a cover of adequate size and strength or guarded by fixed or movable guardrails, which must be identified as such and kept in place except when necessarily removed to work in the opening or pit.	
High Risk	Access/egress	Order #5 - OHS20.5(4): The contractor failed to ensure a safe means of access and egress to each main working level referred to in Subsection 20.5(1)	
High Risk	Worker training	Order #6 - WCA21(2)(e): The contractor failed to provide the workers with adequate information, instruction, training and supervision to ensure the health and safety of those workers in carrying out their work at heights in the power intake Unit 1.	

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #40: The purpose of this inspection report is to document the contractor's request to extend the date for submitting their full employer incident investigation report for an incident that occurred on November 25, 2020 at the generating station and spillways power intake structure Unit 1 work location. This incident resulted in a serious worker injury at the workplace. The original due date for the employee 30 day "full investigation" report was December 25, 2020 as per inspection report IR202017876082A. Reasons for the extension until January 25, 2020: - The complexity of the investigation to accurately determine worker exposure to fall hazards at the work site. - Key personnel, including supervisor, co-workers and/or witnesses are out of the province until January 7, 2020. - Investigation conclusion pending further insight and analysis of the specific work activities.			
		No Orders	December 14, 2020

Ministry of Energy, Mines and Low Carbon Innovation

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Inspection #41: Ministry of Energy, Mines and Low Carbon Innovation inspected the West Pine Quarry. At the time, crushing and loading was taking place.			
Low risk	Brake testing	**Order #1 - Section4.9.01(1):** The contractor failed to ensure that brake and steering systems on tracked or rubber-tired mobile equipment are maintained in safe operating condition through a regularly scheduled preventative maintenance program.	June 15, 2020
Inspection #42: Ministry of Energy, Mines and Low Carbon Innovation conducted a general site inspection at the Portage Mountain Quarry.			
Low risk	Mine rescue	**Order #1 - Section 3.7.5**: The contractor failed to ensure a fully trained and equipped mine rescue team per shift.	June 19, 2020
Low risk	Lock-out procedures	**Order #2 - Section 4.11.2**: The contractor failed to ensure the crusher and trammel are modified such that there is a means to lock and tag them out.	
Low risk	Application of electrical rules	**Order #3 - Section 5.1.1**: The contractor failed to ensure that the light plant is adequately grounded if anything is plugged into it.	
Low Risk	Cranes general	**Order #4 - Section 4.12.11**: The contractor failed to confirm a suitable non-destructive test shall be made by a person certified in accordance with the applicable standards of the Canadian Standards Board 48-GP-4M, 48-GP-7M, and 48-GP-13M on all rigid load carrying components of mobile cranes and bridge cranes greater than 10,000kg capacity and any other cranes when required by the inspector, before being put in to service and at subsequent intervals not exceeding 12 months.	
Inspection #43: Ministry of Energy, Mines and Low Carbon Innovation conducted a general site inspection at the West Pine Quarry.			

Risk Level	Theme	Inspection Reports and Orders Received	Date of Inspection
Low Risk	Mine operations general	Order #1 (Low) - Section 22(2): The manager or designate failed to attend the operating mine.	October 6, 2020
High Risk	Electrical	Order #2 (High) - Section 5.1.1: The contractor failed to ensure the generator is grounded.	
High Risk	Equipment guarding	Order #3 (High) - Section 4.4.16(6): The contractor failed to guard the nip point of all conveyor pulleys.	
High Risk	Equipment guarding	Order #4 (High) - Section 4.4.2: The contractor failed to fully enclose / guard the v-belt	
Low Risk	Explosives	Order #5 (Low) - Section 8.1.6: The contractor failed to remove the exposed iron or steel in the explosives magazine.	

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Site C Clean Energy Project

Annual Progress Report No. 5
(Combined with Quarterly Progress Report No. 20)

Appendix C

Workforce Review

Table C-1 Current Site C Jobs Snapshot (January 2020 to December 2020)[18]

	Number of BC Workers and Total Workers	Construction and Non-construction Contractors[19] (Including some Subcontractors). Excludes Work Performed outside of B.C. (e.g., Manufacturing)	Engineers and Project Team[20]	TOTAL
January 2020	BC Workers	2,511	687	3,198
	Total Workers	3,613	746	4,359
February 2020	BC Workers	2,711	689	3,400
	Total Workers	4,029	756	4,785
March 2020	BC Workers	2,750	704	3,454
	Total Workers	4,123	773	4,896
April 2020	BC Workers	1,457	676	2,133
	Total Workers	2,289	740	3,029
May 2020	BC Workers	1,614	687	2,319
	Total Workers	2,499	736	3,258
June 2020	BC Workers	2,417	689	3,106
	Total Workers	3,580	744	4,324
July 2020	BC Workers	2,715	683	3,398
	Total Workers	3,908	737	4,645
August 2020	BC Workers	2,786	692	3,478
	Total Workers	4,066	738	4,804
September 2020	BC Workers	2,864	683	3,547
	Total Workers	4,214	730	4,944
October 2020	BC Workers	3,052	675	3,727
	Total Workers	4,455	726	5,181
November 2020	BC Workers	2,878	673	3,551
	Total Workers	4,219	722	4,941
December 2020	BC Workers	2,517	656	3,173
	Total Workers	3,716	712	4,428

[18] Employment numbers are direct only and do not capture indirect or induced employment.

[19] Construction and Non-Construction Contractors includes work performed on Site C dam site, transmission corridor, reservoir clearing area, public roadwork, worker accommodation and services.

[20] Engineers and Project Team are comprised of both on-site and off-site workers. The Project Team includes BC Hydro construction management and other offsite Site C Project staff. An estimate is provided where possible if primary residence is not given.

Employment numbers provided by Site C contractors are subject to revision. Data not received by the Project deadline may not be included in the above numbers.

BC Hydro has contracted companies for major contracts, such as main civil works, who have substantial global expertise. During the month of December 2020 there were two workers in specialized positions working for Site C construction and non-construction contractors, which were subject to the Labour Market Impact Assessment process under the Federal Temporary Foreign Worker Program. Additionally, there were 35 management and professionals working for Site C construction and non-construction contractors through the Federal International Mobility Program.

Table C-2 Preliminary Site C Apprentices Snapshot (January 2020 to December 2020)

Month	Number of Apprentices
January 2020	165
February 2020	210
March 2020	205
April 2020	61
May 2020	61
June 2020	147
July 2020	172
August 2020	194
September 2020	197
October 2020	181
November 2020	160
December 2020	165

Data is subject to change based on revisions received from the contractors.

Table C-3 Current Site C Job Classification Groupings

Biologists and laboratory	Carpenters and scaffolders	Inspectors	Construction managers/ supervisors	Crane operators	Electricians	Engineers
Foresters	Health care workers	Heavy equipment operators	Housing staff	Heating, ventilation, and air conditioning	Kitchen staff	Labourers
Mechanics	Millwrights	Office staff	Pipefitters	Plumbers	Sheet metal workers	Truck drivers
Underground mining	Welders	Surveyors	Security guards	Boilermakers	Cement masons	
Ironworkers						

Table C-4 Indigenous Inclusion Snapshot (January 2020 to December 2020)

Month	Number of Indigenous Workers
January 2020	335
February 2020	359
March 2020	353
April 2020	158
May 2020	189
June 2020	305
July 2020	349
August 2020	336
September 2020	359
October 2020	412
November 2020	400
December 2020	347

The information shown has been provided by BC Hydro's on-site[21] construction and non-construction contractors and their subcontractors that have a contractual requirement to report on Indigenous inclusion in their workforce.

[21] On-site includes work performed on Site C dam site, transmission corridor, reservoir clearing area, public roadwork, worker accommodation and services.

Employees voluntarily self-declare their Indigenous status to their employer and there may be Indigenous employees that have chosen not to do so; therefore, the number of Indigenous employees may be higher than shown in the table.

As with any construction project, the number of workers, and the proportion from any particular location, will vary month-to-month and reflects the seasonal nature of construction work. The number of workers will also vary as a contract's scope of work is completed by the contractor.

Women

In 2020, the number of women working for the Site C construction and non-construction contractors increased throughout the year peaking in October 2020. At the peak, the number of women working on site was 14 per cent. The number of women was provided by on-site construction and non-construction contractors and engineers that have a contractual requirement to report on the number of women in their workforce. The following table shows the number of women working on site at the end of each quarter for the 2020 calendar year.

Table C-5 Number of Women Working for Site C Construction and Non-Construction Contractors

	Number of Women Working for Site C Construction and Non-Construction Contractors
March 31, 2020	461
June 30, 2020	426
September 30, 2020	525
December 31, 2020	462

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Site C Clean Energy Project

Annual Progress Report No. 5
(Combined with Quarterly Progress Report No. 20)

Appendix D

Technical Advisory Board Meeting
Report No. 21, No. 21A, No 22 and No. 23

Site C Clean Energy Project

Technical Advisory Board Meeting No. 21

Report

(January 7 – 10, 2020)

January 2020

Table of Contents

List of Attachments

1. Introduction

The 21st meeting of the Site C Technical Advisory Board (TAB) was convened in Vancouver between January 7 and January 10, 2020. The meeting did not include a site visit. The primary objectives were to assess the progress and performance of the Project, as well as review some recent design re-assessments. Technical considerations focussed primarily on the Main Civil Works (MCW).

The agenda for the meeting is included as Attachment A. Attachment B is a list of attendees during the meeting. A debriefing was conducted with the Project Assurance Board and executives of BC Hydro (BCH) on the afternoon of January 10, 2020.

Four questions were put to the TAB:

1. *Does the TAB have any comments on the performance, criteria and design assessment for the Right Bank RCC foundation and stability?*

2. *Does the TAB have any comments on the sequence of construction or design details for the Dam and Core Buttress, foundation grouting and proposed extension of till liner?*

3. *Does the TAB have any comments on the planning and preparations for Stage 2 diversion, and in particular the planning, design and construction sequence for the Stage 2 cofferdams?*

4. *With respect to risks/challenges that may be identified by the TAB in relation to the current construction plan and status (over and above what BC Hydro has identified); what measures might be brought to avoid/mitigate those risks/challenges?*

Detailed responses to these questions are presented below.

The TAB has also provided some additional comments in Section 4.

The TAB wishes to acknowledge the excellent overviews and presentations that it received. It recognizes the substantial effort that goes into the preparation for the TAB meeting and it appreciates the frank and informative discussions that took place during the meeting.

2. Project Update

The TAB received a summary progress report for the MCW updated in detail to December 1, 2019 and additional information to the present time. The major advances since the last report of the TAB include completion of the diversion tunnel excavations and a substantial advance of their lining. Sufficient progress has been made with the inlet and outlet portals to also remove them as potential risks to the critical path. The status of

the GSS Civil Works contract was also summarized, as were key project risks identified as of December 18, 2019.

3. Technical Commentary

3.1 Response to Question 1

1. *Does the TAB have any comments on the performance, criteria and design assessment for the Right Bank RCC foundation and stability?*

The Project has continued with its practice of validating the design basis to reflect ongoing findings from performance during construction and from an assessment of the significance of any new observations that can be made when the foundations are exposed. From the perspective of ensuring safety, this represents best professional practice. The major concerns so far have focussed on the left and right banks of the Project. In this past year, it has been possible to inspect the geological features of the foundation material in sufficient detail to map the fabric of the rock and identify whether the presence of previously identified weak features are more or less extensive than previously identified. In addition, instrumentation installed in the banks to monitor deformations during excavation have also provided information in the presence or otherwise of the weak features that have been recognized in the design.

New findings in the right bank arising from this geological / geomechanical synthesis have raised concerns with respect to satisfying some of the original Design Basis Memorandum (DBM) requirements. These are:

i. A weak bedding plane (BP33e) beneath the spillway has been discovered at a depth deeper than had been anticipated for such features.

ii. Field mapping of extension jointing has revealed a greater and more complex distribution than revealed during the original site investigations. This facilitates a design re-assessment that can accommodate their influence on stability with greater confidence.

iii. Local small shear features have been recognized in some zones that indicate that the rock mass strength within some horizons may have been over-estimated.

Dam design for safety is based on the concept of a Factor of Safety. This defines degrees of resistance in the foundation that are required to be satisfied under various loading assumptions. These loading assumptions or design cases vary from normal operating conditions to more extreme conditions when, for example, the Maximum Design Earthquake occurs or when more conservative assumptions are made with regard to the reliability of prescribed drainage control measures.

The current assessment recognizes that the new information on foundation conditions indicate that past design criteria will not be satisfied without additional mitigation measures. The TAB and the Engineering Design Team (EDT) engaged in extensive discussions evaluating the new information, the logic of past design assumptions, particularly for the extreme case, the appropriate analyses to be used going forward to analyze the situation in more detail, and a schedule to develop executable mitigation measures which will most likely involve the construction of a shear key tunnel across the BP33e.

The recommended way forward involves the following steps:

i. Re-assess the formulation of the Extreme Loading case which, in the past, made assumptions for the calculation of the Factor of Safety that, in the view of the TAB, are excessively conservative.

ii. Synthesize the available data to reflect the current understanding of the controlling strength properties that enter into the calculation of the Factor of Safety and their uncertainty.

iii. Calculate the requirements of the mitigative measures that should be implemented to achieve the design Factor of Safety for both Operating and Extreme Loading conditions.

The schedule to address this re-assessment involves the following:

i. TAB update on February 10, 2020 (meeting by Skype).

ii. Subsequent updates as required.

iii. The TAB review of final assessment and recommendations the week of June 8, 2020.

3.2 Response to Question 2

2. *Does the TAB have any comments on the sequence of construction or design details for the Dam and Core Buttress, foundation grouting and proposed extension of till liner?*

The TAB understands the sequence of construction for the dam and concurs with the proposed staged construction, especially the placement of embankment materials on both the Core and Dam Buttresses. Of particular note is the excellent completed core buttress geologic mapping and surface treatment of the foundation. This detailed mapping revealed joints and shears that will require treatment and grouting. The grouting plans utilize the mapping and experience from deformation evaluation. The TAB agrees with the proposed foundation grouting treatment as recently modified. This work will be done

immediately in advance of the RCC placement along the core buttress. The recent proposal to extend a till blanket upstream along the upstream interface between the RCC and core of the dam at the intersection location is appropriate and an effective addition to the water-tightness of the dam at this location.

Other Project features were presented and discussed:

1. Dam and Core Buttress Shear Key Foundation Extension – The TAB is aware that the EDT is presently contemplating an additional shear key along the base of the Dam and Core Buttresses to further enhance constructability and stability of these buttresses. The TAB concurs with this addition and agrees with the wisdom of increased stability of both buttresses.

2. Core Buttress and Water-stops – Since the RCC design specifies contraction joints at 16 metres centers with water-stops along the joints; there is a concern along the Core Buttress interface with the core. Specifically, the concern is with the fact that the contraction joints will open upon cooling and allow a pathway for seepage along the core-RCC Core Buttress interface and if not protected could lead to core material piping. The EDT have considered this aspect and have detailed several measures on the drawings to minimize contraction joint cracking by adding reinforcing steel in the CVC and RCC along the interface. There are several options of additional protection still being considered by the EDT. The TAB wishes to be informed of the evaluation going forward.

3. Grouting – The TAB was favorably impressed by the quality of the work and the amount of progress made since our last meeting. The grout trials for both the consolidation and curtain grouting have been completed and the results have been factored into the ongoing production grouting. The contractor and the BCH field team are presently developing freeze protection methods for working in the upcoming cold weather period.

4. RCC Production – This past 2019 was a banner year for the RCC Contractor Team and has completed the Spillway Buttress and Walls by the end of October. Various tests were performed to determine if a lower cement content RCC could be used in the upcoming 2020 RCC season. However, the tests did not indicate enough difference or benefit so the original 80-130 Mix will be maintained and used again this coming season.

5. Quality Control - The last TAB Report, No. 20, dated May 2019, did elaborate and express concerns regarding the Quality Control and Quality Assurance of the work, especially the MCW contractor's responsibilities for Quality Control. A system of Quality Performance Indicators has been developed which is broken down by major project features. These indicators are then recorded and monitored among Engineering, Manufacturing and Construction. See presentation below:

Quality Performance Indicators

Sub-Project		Work Area		Activity		
				Engineering	Manufacturing	Construction
Main Civil Works (MCW)		Diversion (DIV)				
		Main Dam (MND)			*N/A*	
		RCC Buttress (RCC)			*N/A*	
GSS Civil Works (GSS)		Generating Station (STA)				
		Intake and Penstocks (IAP)				
		Spillway (SPL)				
GSS Equipment Supply		Hydromechanical (HME)				
		Large Cranes (CRA)				
Turbines-Generators (TG)						
Balance of Plant Contract (BoP)		Balance of Plant Contract (BoP)				
		Transformers (TXM)				
		Generator terminal Equipment (GTE)				
		AC Station Service (ACS)				
Transmission & Substation		Transmission Lines (TRM)				
		Southbank Substation (SBK)				
Highway 29 Realignment (HWY)						
			Legend:		*= No Risk to Quality*	
					= Potential Risk to Quality	
					= Actual Risk to Quality	

In addition, Quality and Emerging Issues are recorded and tracked. These issues are then a focus of areas to attend to in order to enhance the quality of the work.

An example of the areas of concern regarding the MCW contractor is shown below:

MCW:

- PRHP without a permanent Quality Director since mid-October 2019.
- Significant number of non conformance reports raised in November for diversion tunnel liners reflective of thermal control and wet curing observations made during the summer and fall.
- Repair of tunnel liner surface defects underway and progressing well. Repair of tunnel liner cracks not started and may require treatment.
- Quality of RCC placed in 2019 was good.
- BC Hydro monitoring PRHP onsite laboratory in advance of main dam materials processing in spring 2020.

Thus, as described and shown above, the attention to obtaining quality has greatly improved and the actions of clearing non conformances has been a focus of Quality, both Engineering and Construction.

3.3 Response to Question 3

3. Does the TAB have any comments on the planning and preparations for Stage 2 diversion, and in particular the planning, design and construction sequence for the Stage 2 cofferdams?

River closure by the Stage 2 cofferdams is planned to take place between September 1st and October 15th, 2020. An earlier start on the work may be feasible and is encouraged by the TAB to give as much float as possible. However, the final completion date to the first elevation milestone of El 422 is 15th October. The timing has been carefully chosen such that the final river closure section across the central river sections fits best estimated river flow conditions between the end of the typical annual flood season and the need to resume upstream generation.

The sequencing of the Stage 2 cofferdams is also part of a much larger picture. It will be closely integrated with:

- Upstream reservoir clearance.
- Debris boom installations together with associated operation, management and surveillance (OMS) guides.
- Diversion tunnel completion and associated intake gate commissioning.
- The introduction of a series of plans to address upstream flow management, operations, surveillance and emergency preparedness.

All of the above will be managed according to any necessary Leaves and Consents.

The TAB was taken through the detail of all these aspects and in particular the careful sequence of filling and testing envisaged for the Diversion Tunnels. The TAB commends the careful planning that has gone into this aspect of the work by BCH.

The river closure cofferdams will start on both riverbanks in four locations, two upstream and two downstream. Foundations will be progressively sealed across the river by sheet piling cut-offs and at the same time the river controlled and progressively constricted by dumped fill protected by large size riprap. While ownership of the design will be by the MCW contractor, assistance is being given by BCH in the form of computational river hydraulics modelling. This has indicated localized peak river velocities of 3.6 to 4.2 m/s under flood conditions together with estimated locations and extents of any associated bed scour.

The modelling has also indicated that river closure is best limited to 50% of the river section until the first diversion tunnel is available to divert part of the river flow. Once that happens, final river closure can take place. The TAB wishes to emphasize the criticality of the contractor operations, riprap sizes and stockpile adequacy, so that once started, the closure operations can take place without delay.

With regards to the detailed design of the cofferdams these follow conventional precedent for such works and the TAB have no undue concerns over the concepts adopted. However, the proposed trial of pile installation in advance of the cofferdam construction is an important element to confirm productivity during this critical phase.

3.4 Response to Question 4

4. With respect to risks/challenges that may be identified by the TAB in relation to the current construction plan and status (over and above what BC Hydro has identified); what measures might be brought to avoid/mitigate those risks/challenges?

In the various presentations made to the TAB, dealing with encountered geological conditions, observed performance of foundations and slopes, progress rates and quality of construction, the TAB took particular notice of the close monitoring and comprehensive recording conducted on site and, in particular, the analyses performed of the compiled information in regard to anticipated and emerging risks and their management.

The TAB is favorably impressed with the diligence of identification and resolution of risk situations as achieved by the project team. This leaves only a limited number of items to which the TAB wishes to draw attention.

3.4.1 Diversion Tunnel

On occasion of the last site visit, flaws in the quality of the tunnel lining concrete were observed. The TAB is satisfied with the remedial measures directed by the EDT. On the other hand, as recent experience with the Ituango project in Columbia demonstrated, technical problems with the diversion system have the potential for severe impacts. The diversion tunnels are on the critical path for the project and the schedule leaves no time for additional repairs. The TAB, therefore, recommends that the concrete placement in the crown, which proved difficult in many projects, is evaluated with particular care in order to achieve the required strength and contact with the rock surround. The TAB also recommends that additional check holes in the crown be made to confirm the adequacy of the concrete/rock contact grouting along that location.

3.4.2 Earthfill Material

There is one open conveyor for transport of the material to the site. This condition implies a potential risk for the progress of the work in the event of failures in this system, as experienced with the RCC. There could also be problems with the water content of the material when it arrives on site. A program of calibration of operations to ensure adequacy of moisture content under variable climatic conditions is important.

3.4.3 Right Bank Drainage Tunnel

The tunnel is only partially accessible. Functioning of the drains cannot be checked. Signals from instrumentation are interrupted and significant damages may have been caused by flooding. The loss of data and the circumstance that critically important geotechnical and hydrogeological developments may remain undetected pose serious risks for the advancing works. Therefore, the TAB recommends that access from the powerhouse gallery be utilized for dewatering, inspections and repair.

4. Additional Commentary

In addition to the Technical Commentary above, the TAB makes the following observations and recommendations:

4.1 Tracking Log

The Tracking Log is an important archival document. The TAB recommends that it be reviewed by the EDT periodically to ensure that preliminary responses in the Log are accurate records of actions taken with any related explanations.

4.2 Winter Works

The weather forecast for this winter at site is for severe conditions. Given that several critical path activities such as grouting, will proceed through the winter, quality and productivity should be closely monitored to ensure that schedule requirements will be met.

4.3 Zone 1 Test Fill

The TAB was shown the results of trial compaction tests for Zone 1 Fill material. These trialed both a 50t pneumatic roller and also a 15t vibratory roller for comparison. The rolled layers were all 300mm thick after compaction but featured varying degrees of moisture content in the fill from minus 2% of optimum to plus 1% of optimum. In the opinion of the TAB the most satisfactory results were obtained using the 50t pneumatic roller. These showed the most rapid and consistent development of compaction to the specification requirements.

4.4 Geological Mapping and Interpretation

The EDT has made a considerable effort in mapping the foundation of the dam and other features as they are revealed. This has been performed to a very high standard and has provided essential information to support safe design and operation.

4.5 Reservoir Erosion and Landslide Monitoring

The TAB was updated on the extensive state-of-the-art program being undertaken on monitoring the reservoir shoreline, much of it using a combination of terrestrial Lidar change detection, aerial photogrammetry and satellite imagery. These are being coordinated and cross checked against site data in the field such as from inclinometers and shape arrays. The TAB applauds the high level of output being achieved which will be used among other things, to:

- Manage geotechnical risk during construction.
- Confirm current and future changes and impact lines around the reservoir.
- Inform social, environmental and archeological monitoring programs.

The last aspect can have an especially valuable role in BCH's communications with local communities and stakeholders. However, in all this the TAB would emphasize the need to regularly validate any data collected by remote sensing with ground verification prior to accepting reports as final and appropriate protocols should be developed.

4.6 Construction Report

The TAB has in the past recommended more detailed consideration be given to the Construction Report in terms of its completeness and in terms of retrievability of the information assembled. The TAB received an update on progress in this regard and is pleased to see that it is evolving in the right direction.

4.7 Debris Management

The various proposals for debris management were presented to the TAB as an update since the previous TAB Meeting No. 20 in May 2019. Since that time designs have been finalized for the BCH operated boom on the Peace River and for the PRHP operated boom and piles on the Moberly River. Discussions continue on the design of the secondary PRHP operated boom on the Peace River and decisions are awaited on the final form and implementation of that, and how the whole system of debris collection and removal will be managed. At the same time upstream catchment debris clearances have continued with removal volumes much in line with earlier estimates, which the TAB finds encouraging. The whole process of debris control will be managed through a dedicated Operations Manual and supported, as mentioned in a previous section, by a series of plans as a means of upstream flow control and management. The TAB was satisfied that all these aspects are being coordinated and developed well in readiness for the planned river diversion later in the year.

5. Future Meetings

The TAB recommends that the next TAB meeting be held on site and in Vancouver between June 8 and 12, 2020. In addition, TAB update teleconferences will convene as summarized above and as required.

Respectfully submitted,

[redacted]

[redacted]

[redacted]

[redacted]

Attachment A – Meeting Agenda

BC Hydro
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Site C Clean Energy Project
Technical Advisory Board Meeting No. 21
January 7 to 10, 2020

[redacted] [redacted] **Vancouver, BC**

Day 1 (Tuesday, January 7, 2020)

Time	Title	Presenter / Time Allocated
8:00 to 8:10	Welcome, Safety and TAB Agenda	[redacted]
8:10 to 8:20	Tracking Log	[redacted]
8:20 to 9:00	Construction Update and Status	[redacted]
9:05 to 9:20	Update from Independent Engineer	[redacted]
9:20 to 9:50	Geology Update	[redacted]
9:50 to 10:15	Left Bank Rock Slopes and Core Trench excavation	[redacted]
10:15 to 10:30	Break	
10:30 to 11:20	Grouting &Till Trial Update	[redacted]
11:20 to 12:00	RCC Update Dam and Core Buttress & Construction Sequence	[redacted]
12:00 to 13:00	Lunch	
13:00 to 13:30	Update on Tunnels and Structures	[redacted]
13:30 to 15:00	Review of Right Bank Performance &Analysis	[redacted] [redacted]
15:00 to 15:30	Break	
15:30 to 17:00	Open Discussion	

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Site C Clean Energy Project
Technical Advisory Board Meeting No. 21
January 7 to 10, 2020
[redacted] [redacted] **Vancouver, BC**

Day 2 (Wednesday, January 8)

Time	Title	Presenter / Time Allocated
8:00 to 9:00	GSS, BOP Update	[redacted]
9:00 to 10:00	Reservoir Monitoring InSar	[redacted]
10:00 to 10:30	Break	
10:30 to 11:00	Construction Records Update	[redacted]
11:00 to 11:30	Quality Update	[redacted]
11:30 to 12:00	Open Discussion	
12:00 to 13:00	Lunch	
13:00 to 13:15	Update on Clearing and Debris Management Facilities	[redacted]
13:15 to 15:00	Construction Sequence/Schedule for River Closure Review of Stage 2 Cofferdam Design Update on Hydraulic Modelling for Closure	[redacted]
15:00 to 15:30	Break	
15:30 to 17:00	Review of Key Risks Open Discussion	[redacted]

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Site C Clean Energy Project
Technical Advisory Board Meeting No. 21
January 7 to 10, 2020

[redacted] [redacted] **Vancouver, BC**

Day 3 (Thursday, January 9)

Time	Title	Presenter / Time Allocated
9:00 to 12:00	Open Discussion/ TAB Report	
12:00 to 1:00	Lunch	
13:00 to 17:00	TAB Report	
18:00 to 20:00	TAB Dinner – Location TBD	

Day 4 (Friday, January 10

Time	Title	Presenter / Time Allocated
8:30 to 12:00	TAB Report	
12:00 to 13:00	Lunch	
14:00 to 16:00	Report out to Executive and Project Board 333 Dunsmuir	

Attachment B - List of Meeting Attendees

TAB Members:

[redacted]

BC Hydro:

[redacted]

Other:

[redacted]

Site C Engineering:

[redacted]

Site C Clean Energy Project

Technical Advisory Board Meeting No. 21A

Report

(Conference Calls: 2020 February 10, 2020 March 27 and 2020 April 2)

April 2020

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List of Attachments

1. Introduction

Three conference calls were held with the Site C Technical Advisory Board (TAB) on February 10, March 27 and April 2, 2020. The primary objectives were to assess the progress as well as review some recent design re-assessments. Technical considerations focussed primarily on the Main Civil Works (MCW).

The agendas for the conference calls are included as Attachment A. Attachment B is a list of attendees during the meetings.

Four questions were put to the TAB. (The first three questions relate to the right bank structures):

1. Does the Board have any comment on the recommendations for lowering the extreme case water pressure to El. 411.6m with the addition of gravity drains through the RCC?

2. Does the Board have any comment on the recommendation to maximize drainage below the elevation of the right bank drainage tunnel and the options to complete this without new underground excavations? Is the Board aware of other options?

3. Does the Board have any comment on the options for increasing stability by structural stabilization?

4. Does the Board have any comment on the earthfill dam foundation review?

Detailed responses to these questions are below.

The TAB wishes to acknowledge the excellent overviews and presentations that it received. It recognizes the substantial effort that goes into the preparation for the TAB meeting and it appreciates the frank and informative discussions that took place during the conference calls.

This report was completed by teleconference on April 13, 2020.

2. An Understanding of the Current Situation for the Right Bank Structures

FoS and displacement analyses have shown that removing water as a driving force makes the biggest single difference to achieving required stability and so drainage should be a part of any solution.

It is proposed that internal (rock) water loading criteria for the Extreme Stability case, and requiring a Sliding FoS of 1.1, should assume that upstream water levels in the rock are limited to no higher than the tailwater level of +411.6m (say +412m). This can be

achieved by direct gravity connection to downstream via suitable drainage arrangements (with a certain allowance for seepage gradient).

The project has also recommended modifications to the approach channel that include movement of the grout curtain further away from the structures with extension of the concrete slabs, and underdrainage to increase robustness.

It is proposed that internal water loading criteria for the Normal Stability case, and requiring a Sliding FoS of 1.5, should assume that upstream water levels in the rock are limited to no higher than bedding plane 33e (approximately El. +372m) and accepting that this will require continuous artificial intervention via pumping.

At both the Powerhouse and Spillway Buttresses, gravity drainage connection arrangements are feasible to achieve the Extreme case requirement. For the Normal case requirement, artificial dewatering could be achieved via drains to a deep-seated drainage collector gallery or via a series of separate deep pumped wells. Currently, and based on recent experience at site, it is BC Hydro's preference to avoid underground tunnelling if possible.

Drainage alone does improve stability FoS to approximately 1.0 in the Extreme case and approximately 1.3 in the Normal case, however it is not possible to achieve the required safety factors with the arrangements as currently designed. Other structural interventions are needed to achieve further improvements.

Structural studies to date have focused on the Powerhouse Buttress and options reviewed include:

- RCC filled shear key tunnels at the bases of the downstream key trenches
- Deep Shear piles
- Post tensioned anchors
- Upstream drag plates
- Upstream RCC and piles to move internal failure planes farther upstream

It is the view of the TAB that the optimal technical consideration should:

1. Eliminate /minimize infiltration and other sources of seepage
2. Maximize drainage
3. Minimize deformations associated with the mobilization of mechanical resistance
4. Offer ability to monitor performance

5. Provide ability to enhance stability based on performance monitoring

The TAB regards that items 1 and 2 can be solved independently from item 3, 4 and 5 and so that the latter items (3, 4 and 5) can concentrate on resolving the residual risk. The TAB is also of the view that the mitigation required for the spillway may not be the same as required for the powerhouse. The process to converge on the optimal solution is discussed below.

Question 1. Does the Board have any comment on the recommendations for lowering the extreme case water pressure to El. 411.6m with the addition of gravity drains?

The Board was advised of the requirements for a liner/drain combination to lower the water level within the rock for use in stability calculations from reservoir level to the base of the liner in the Approach Channel for the Extreme case. The TAB accepted the concept of using the lower water level if the approach channel has the necessary design details to provide the required redundancy. It was noted that the grout curtain is integral with the drainage requirements and needs to be detailed in the scheme.

The Board was presented with a layout that included gravity drains through the RCC. The Board seeks more details on the proposed layout to assess if it is adequate or whether there is a more optimal drainage layout. This effort is consistent with the Board's recommendation to maximize drainage in the design of the mitigation measures.

Question 2. Does the Board have any comment on the recommendation to maximize drainage below the elevation of the right bank drainage tunnel and the options to complete this without new underground excavations? Is the Board aware of other options?

This is a consideration that involves considerable complexity. One option proposed by the TAB to be considered is the use of the deep shaft. Such a shaft could gain access to a point where a de-watering tunnel could then be taken off. This might also be separate to current on-going activities at site. In addition, sump pumps could be used in this case.

Such deep drainage will ultimately rely on pumping, either via a collection sump(s) into which drains ultimately flow or by a series of separately pumped drains. While the behaviour of the foundation can be monitored via prediction and observation, the reliability of any pumping system would require an assessment of and "guarantee" of that reliability. CDA guidelines indicate an Extreme case probability of one in 1,000. This would suggest that the reliability of the pumping system needs to be at least that or better for the Extreme case to be avoided. This then becomes a factor in determining the most appropriate layout in conjunction with the selected electro-mechanical arrangements.

These considerations will likely involve some form of underground excavation as an integral part of this strategy. The choice of optimal drainage solution may be coupled with the choice of optimal structural solution.

Question 3. Does the Board have any comment on the options for increasing stability by structural stabilization?

The Board comments on the options presented as follows:

1. **RCC Key Tunnel** – Modelling showed that an 8m wide by 11m high RCC filled Key Trench Tunnel was not alone, sufficient to achieve required stability. Significant displacement yields occurred on bedding plane 33e (at approximately El. +372m and on two lower planes at +364 and +358m. Similar bedding planes are thought to exist generally from +372 down to +350m and so the concept of a key tunnel is not being pursued further. The TAB agrees.

2. **Deep Shear Piles** – This option assumes multiple 8' (2.44m) dia. piles down to El. +350m. The piles would either be steel, backfilled with concrete, or concrete with internal rebar cages. Installation would be from the surface and it is a well-established technology. However, the way in which groups of such piles would work together in rock may need further clarification. It is considered that, in conjunction with foundation drainage measures, such piling might be required to provide an equivalent shear resistance of 10 MN/m run. The option is practical and so is to be taken further. The TAB agrees but points out that mobilization of deep shear piles may involve significant lateral deformations and these are controlled by the stiffness of the ground which is not readily characterized for the current ground conditions.

3. **Post Tensioned Anchors** – This option incorporates well established engineering practice. It has the advantage of applying a positive upstream, active, stabilising load and should thus minimise any significant downstream yield. Short anchors (approximately 56m) are feasible but would require lower galleries to be excavated possibly below El. +350m as well as upper galleries excavated in the RCC key trenches. The former could usefully serve as a permanent de-watering facility. Other single gallery and non-gallery arrangements are feasible but would require longer (circa 100m) anchors. The option involving post tensioned anchors is again practical and also flexible. It is to be taken further and the TAB agrees.

4. **Upstream Drag Plate** – This is an interesting concept which takes advantage of the fact that part of the upper, upstream approach channel is now to feature a concrete invert slab and dewatering arrangements. This option takes that concept further by making the works more substantial with regard to relative movement by anchoring them down and then using that as an "anchor block" to restrain the downstream buttresses. However, the arrangement puts the buttresses and the structural concrete works they support into overall tension, including the upper anchor nosing and gallery.

To become an acceptable option a structural review of this concept is needed which follows the various load paths to ensure that all parts involved would be structurally adequate. There are limited precedents for this option. It is suggested that this option be put on hold pending structural checks.

5. **Upstream Piles and RCC** – This option has not been developed to any great extent but would involve excavation, RCC and piling in the upper apron channel immediately upstream of the buttresses. In concept this would extend the theoretical failure path farther upstream and so gain an associated incremental increase in FoS. It may be possible to develop the concept further given that some upstream apron concrete is anyway, now envisaged. However, it needs more work to develop and prove a practical arrangement. The TAB is skeptical that a practical solution will emerge.

The Board is content that all practical options are under consideration but reminds the Project that a combination of options may well be appropriated for the different needs of the spillway than the needs of the powerhouse.

Question 4. Does the Board have any comment on the earthfill dam foundation review?

The status of design of the stability of the earthfill dam on its foundation was summarized, together with the past foundation characterization that controlled stability. Detailed assessment of current conditions suggests that this foundation characterization be revised based on the more detailed information currently available.

Progress with respect to this revision suggests that the controlling foundation conditions are more severe than previously used in design with respect to 1) residual strength 2) additional roughness, 3) continuity and depth of controlling bedding planes, and 4) post peak brittleness. The magnitude of pore pressures both at the end of construction and with post construction dissipation remain uncertain and this also has to be considered in the reassessment of stability.

The TAB supports the current effort to advance revised operational properties and to update the stability analysis related to the original design criteria. In so doing, the TAB recommends the following:

1. A distinction should be made for a most likely case (MLC) and reasonably worst case (RWC). Appropriate factors of safety should be recommended for each case and it is recognized that the observational method should be used where appropriate to identify if the reasonably worst case is developing. If the RWC is developing, a default design will have to be implemented to bring the RWC up to the appropriate standard and must be demonstrated as feasible.

2. It is conceivable that the distinction between the MLC and the RWC will not be large given the significant brittleness displayed by the laboratory data with respect to the shear strength of the bedding planes.

3. It should be recognized that many agencies adopt lower factors of safety when design is based on residual strength or close to it.

4. The role of the application of the 3D analysis should be considered in these analyses because of the potential large 3D contributions to stability.

3. Going Forward

The TAB is conscious that the choice of the final mitigation efforts involves a number of factors such as cost, schedule, precedence, reluctance for underground works and other factors. Moreover, the decisions made for these mitigation efforts will be scrutinized by many and therefore the documentation of the decision process should be thorough. To this end, the TAB recommends that a structured decision making process be carried out to select the optimal mitigation measures. This should be carried out by the Project Team and ultimately reviewed by the TAB. In the experience of the TAB, this is best conducted with the assistance of a facilitator using techniques such as Multiple Accounts Analysis. Alternate contractual arrangements should also be a factor under consideration.

4. Future Meetings

The TAB recommends that the next TAB meeting be held in Vancouver between June 8 and 12, 2020. In addition, TAB update teleconferences will convene as required, the next one being scheduled for May 8, 2020 to provide an update on the current options including also the drainage options.

Respectfully submitted,

[redacted]

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[redacted]

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[redacted]

[redacted]

Attachment A – Meeting Agendas

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
10 February 2020
8:00am to 11:30am PST

[redacted] [redacted] **Vancouver, BC**

AGENDA

1. Load cases RCC Buttresses
    a. DBM
        i. Acceptance criteria
        ii. Review current cases
        iii. Proposed load cases
    b. Strength
        i. Extension joints
        ii. Bedding planes
        iii. Characterization of cross bedding breakout strength
2. Options for achieving load cases for Powerhouse and Spillway
    a. Options and path forward
3. Review status of right bank changes
    a. Core buttress stability during construction & dam buttress
    b. RCC buttresses construction joints details – waterstops update
    c. Right bank additional instrumentation
4. Earthfill dam and Stage 2 upstream cofferdam update
5. Open discussion

Call-In Information

[redacted]

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
27 March 2020
8:00am to 11:30am PDT

Location: Conference Call and Screenshare

AGENDA

1. Project Update and Objectives
2. Right Bank Foundation
    a. Geological Model Update
    b. Stability, Drainage and Drainholes
    c. Remediation measures
        i. Shear Key
        ii. Piles
        iii. Anchors
        iv. Dragging plate
        v. Summary Table
        vi. 3D effect
    d. Decision Matrix
3. Core Buttress stability during construction
4. Earthfill Dam in the Right Bank Core Trench Area – Update
5. Open discussion

Call-In Information

Attachment B - List of Meeting Attendees

TAB Members:

[redacted]

BC Hydro:

[redacted]

Other:

[redacted]

Site C Engineering:

[redacted]

Site C Clean Energy Project

Technical Advisory Board Meeting No. 22

Report

(June 8 - 12, 2020)

June 2020

Table of Contents

List of Attachments

1. Introduction

The 22nd meeting of the Site C Technical Advisory Board (TAB) was convened via Webex and Teams conference calls between June 8 and June 12, 2020. The meeting did not include a site visit. The primary objectives were to assess the progress and performance of the project, as well as review some recent design re-assessments. Technical considerations focussed primarily on the Main Civil Works (MCW).

1.1 Meeting Organization

Meeting No. 21 of the TAB was the last meeting involving a site visit. Since that time, the TAB has convened for a number of technical updates which are recorded in the following documents:

1. Report No. 21A which summarizes the discussions with the TAB for the dates of February 10, March 27 and April 2, 2020.

2. Notes from other technical updates for the periods of May 8, May 15 and June 1, 2020.

The agendas for all of these technical updates are included in Attachment A.

Both this Report No 21A and subsequent notes are available on the Project Sharepoint site.

The agenda for this meeting is included as Attachment B.

The project's excavation/construction are not materially changed from the last TAB meeting with the exception of the progress toward river diversion and design activities.

Meeting No. 22 focussed on:

- Foundation measures for the Right Bank structures

- Final details on the diversion tunnels

- Final elements of river diversion planning including the remaining details associated with the Stage 2 closure cofferdam

Attachment C is a list of attendees during the meeting. A debriefing was conducted with members of the Project Team and Executives of BC Hydro (BCH) and the Independent Engineer on the morning of June 12, 2020.

The TAB wishes to acknowledge the excellent overviews and presentations that it received. It recognizes the substantial effort that goes into the preparation for the TAB

meeting and the technical update conference calls, and it appreciates the frank and informative discussions that took place during the meetings.

2. Project Update

The TAB received a project update that included the following:

- Total Project Performance as of May 1, 2020 – a number of metrics are designated RED reflecting both the impact of the COVID-19 pandemic and the scope associated with the enhancements under consideration related to Right Bank stability
- Site safety incidents
- Quality Performance which is being managed well, particularly under the current circumstances
- Risk – a summary of key project risks
- A review of the River Diversion summary schedule
- Schedule for other MCW and GSS workplans
- A pictorial review of critical locations on site

The plan for River Diversion which had been discussed in the past with the TAB was summarized with detailed attention to the upstream closure cofferdam construction constraints.

The status of concrete patching, installation of debris control structures and general diversion readiness was also presented. In addition, the TAB was advised of the state of Highway 29 construction.

The TAB was pleased to receive this update but regrets that a site visit could not be made. In future, it would be helpful to compensate for this lack with drone-based or other pictorial information.

The TAB regards that honoring the diversion as planned under the current circumstances should be regarded as a significant achievement.

3. Questions to the TAB

Six questions were put to the TAB:

1. *Is the TAB convinced that based on the available information (instrumentation, mapping of geology, modeling, etc.) that additional stability measures are required?*
2. *Does the TAB have any comment on the process of evaluation and weighting of the structural options for the Right Bank Stability? What in the TABs opinion are the outstanding feasibility questions?*
3. *Does the TAB have any comment on the proposed changes to the approach channel, drainage and grouting, including the addition of a grouting gallery extension from the Dam Buttress? Is the TAB supportive of advancing these details to preliminary engineering while the evaluation for structural options for the Right Bank continues?*
4. *Does the TAB have any comment on the modelling underway for the piles and shear wall options for the Right Bank Stability and the proposed trial excavation?*
5. *Does the TAB have any comment on the requirement of the additional lower drainage tunnel, as this introduces significant risk to the project due to the requirement for additional tunneling?*
6. *Does the TAB have any comment on the status of the studies on the foundation conditions for the earthfill dam?*

Detailed responses to these questions are presented below.

The TAB has also provided some additional comments in Section 4.

4. Technical Commentary

4.1 Response to Question 1

1. *Is the TAB convinced that based on the available information (instrumentation, mapping of geology, modeling, etc.) that additional stability measures are required?*

Based on the available information regarding current strength and conditions and the detailed computer modeling conducted, the TAB is convinced that additional stability measures are required.

Over the past two years the Engineering Design Team have been monitoring, measuring, studying, and evaluating the reactions of the Right Abutment rock conditions. The detailed monitoring was conducted during excavation as well as measuring movements and reactions associated with the placement and loading of the RCC Buttresses. This has included geologic rock foundation mapping as well as

studying instrumentation results from piezometers, inclinometers and survey markers. During recent (2018-2019) foundation excavations required for the spillway buttress, there were inclinometer readings indicating movements on several deeper bedding planes that were earlier considered to be stable. Bedding planes BP29A and BP33E are examples that led to a re-evaluation of the movements and strengths along bedding planes. The following are examples of earlier design assumptions versus the present conditions along bedding planes.

Design Assumption	Current Conditions
Movement on BP18	Minimal Movement Observed
No movement on BP29A, BP33E	>70 mm movement on BP29A
No significant BPs below BP33	Back analysis of BP33E yields phi=11
Stress Relief Fractures (SRF) terminate on BPs	SRFs vertically continuous across BPs
Most SRFs terminate on BP25	Significant number of SRFs present below BP25
SRFs remaining after excavation will be tight	Rock has loosened so that remaining SRFs can still be highly conductive

The re-evaluation of the right abutment has been completed utilizing reduced strength parameters along bedding planes. The Design Basis Memorandum will be updated to incorporate the current strength parameters. A detailed geologic and structural model has been developed and evaluated. The Canadian Dam Association (CDA) requirements regarding standard of care and regarding structural stability factors have been adopted by the project. Additional measures are needed to meet these design criteria.

The observational approach was utilized in the final design of the project, in particular with regards to the right abutment features and foundations for the hydraulic structures. Given the complex nature of the geology and geotechnical features there will be additional stability measures necessary to resist the water loads imposed by the reservoir. Foundation drainage will be a necessary component of the design in order to maintain the required stability. These features are presently being considered by the Engineering Design Team and play a significant role in the consideration and design of the additional stability measures required to meet design criteria.

4.2 Response to Question 2

2. Does the TAB have any comment on the process of evaluation and weighting of the structural options for the Right Bank Stability? What in the TABs opinion are the outstanding feasibility questions?

The selection of the best option for improving the stability of the Right Bank Structure is a complex undertaking, involving matters of technical feasibility, constructability and management related issues with some elements lacking precedence. The TAB has been a strong advocate of adopting a structured decision-making process to assist this selection and, in its experience, it has found the MAA procedure to be effective in assessing the variable inputs involved and organizing them into a coherent summary to guide ultimate decision-making.

The MAA is effective in integrating multiple points of view, with flexibility in efficiently doing sensitivity studies by modifying the weightings if there is interest in assessing the robustness of the conclusions. It also provides a valuable record of the decision-making process.

The TAB has been consulted on the evolution of the MAA as it progressed to its current state. It is content that it has been managed well and, while the TAB has not devoted much time to the weightings, it is also content that they are reasonable. The TAB will look more closely at weightings and their sensitivity when the process has been finalized with respect to the “musts” and the “desirable wants” and all sensible options have been included. With respect to the “musts”, the TAB recommends that more detailed scrutiny be paid to the serviceability criteria as laid out in the design. The limitations on dam deformations associated with impounding are onerous. Other serviceability restraints might be designed out of the system. The TAB also places a high value on construction simplicity and the results should rank this as a “desirable want” if not already recognized.

Feasibility relies on establishing adequate resistance under the prevailing loads, exhibiting tolerable deformations, reliable constructability and provision of an adequate quality assurance program. None of the options have been evaluated to finalize the assessment of these criteria but considerable activity is underway to do so.

The TAB recommends as part of the assessment, attention be given to hybrid concepts such as anchors (designed to a convenient precedent) plus piles or shear walls.

4.3 Response to Question 3

3. Does the TAB have any comment on the proposed changes to the approach channel, drainage and grouting, including the addition of a grouting gallery extension from the Dam Buttress? Is the TAB supportive of advancing these

details to preliminary engineering while the evaluation for structural options for the Right Bank continues?

Analyses have shown that the biggest factor contributing to the potential instability of the spillway and powerhouse RCC buttresses is water loading within the Right Bank hillside. This was recognized in the tender design with the provision of a Right Bank Drainage Tunnel and by minimizing the potential for water ingress into the hillside from above by water-proofing the approach channel above the slope. However, the behaviour of the hillside upon excavation has shown an extended potential for relaxation movement and cracking, possibly extending into the approach channel. This has necessitated the robustness of channel waterproofing arrangements to be reviewed as well as the means of generally ensuring the drainage of the hillside. Maximum reliability is essential to achieve the controlling loading requirements in the design. Various arrangements are now being developed by the Engineering Design Team (EDT) all of which the TAB support in principle but with some comments on matters of detail. These are discussed below by individual aspect.

The adoption of a more robust liner and drain in the Approach Channel is also needed to give confidence to lowering the assumed water level in hillside relaxation joints below the Approach Channel from 461.8 m to 432.5 m in the extreme loading case. In terms of stabilising the powerhouse buttress, this is equivalent to a lateral load reduction from 29 MN/m to 15 MN/m in the mechanical stabilization resistance which would otherwise be required.

It is proposed to provide an enhanced zone of secure waterproofing along the approach channel and immediately upstream of the spillway and power intakes and a dewatered zone immediately beneath it. Details are being developed and at present show reinforced concrete slabbing overlaying a waterproof HDPE or PVC and GCL combined membrane which in turn overlays various zones of drainage fill and an underlying bitumastic membrane. The fill then drains, via drainage pipes, into the upstream gallery systems of the spillway and power intakes.

The use of HDPE or PVC is a change from the solely bitumastic Coletanche liner currently specified. The TAB acknowledges the advantages this change may have, especially regarding ductility, but would nevertheless urge BC Hydro to review the benefits and disbenefits of the various alternatives with their specialist advisor, Kerry Rowe and pay special attention to long term durability. The TAB would also question the value of the lower GCL membrane.

The TAB believes that current proposals would benefit from greater simplification by, for example, exploring alternatives to the multiple layers of zoned fill. A single layer of no-fines concrete for example, could be explored as could the use of a geotextile drainage layer. Even more importantly, careful attention must be given to providing a secure

water-proof connection between the intakes and spillway headworks and the concrete slabs which is also capable of significant elongation. A geotechnically based option is indicated on current proposals but would seem to be of limited use should significant movements occur. Similar details would be needed between the slabs and the grout caps and curtains which will surround the limits of the slabs. Mechanical membrane connections to dams and other structures are becoming increasingly common in the industry and the TAB would recommend a review of similar details which have been used successfully elsewhere.

The TAB also fully supports the concept of compartmentalizing this enhanced zone of waterproofed concrete slabbing so that, if a leakage does occur, it does not then affect the whole hillside. Compartmentalizing will also help identify the locations of any future leakages and so facilitate remedial action.

The zone of hillside immediately under this waterproofed slabbing will be sealed by a triple layer “upstream” grout curtain running lengthways along the channel and which also crosses the channel upstream and downstream. The concept is to produce a sealed and dewatered “box” within the hillside. It is also proposed that the upstream line of grouting incorporates a gallery for monitoring and potentially future grouting. This would enable any future developing relaxation joints to be sealed against ingress from the reservoir upstream. This is a sensible precaution which the TAB supports although clearly the details of the proposed gallery and the associated grout caps to be used elsewhere is still work-in-progress. There are also proposals to extend the grout curtains downstream to flank the powerhouse and spillway and eventually seal across them downstream with a single line of grouting. The TAB would regard the primary benefit of such a single grout line to be more exploratory at this stage.

Finally the TAB note that proposals for the remainder of the approach channel are effectively unchanged in principle from those shown in the tender documents other than perhaps to change the type of waterproofing membrane used from bitumastic Coletanche to either HDPE or PVC. Again, the TAB would urge BC Hydro to review the benefits and disbenefits of the various alternatives with their specialist advisor, Kerry Rowe as part of their decision-making process.

4.4 Response to Question 4

4. Does the TAB have any comment on the modelling underway for the piles and shear wall options for the Right Bank Stability and the proposed trial excavation?

The modelling underway to evaluate the alternate structural solutions to enhance Right Bank stability involves advanced state-of-practice methods that have only relatively recently become practical, at least for three-dimensional analyses. The modelling is particularly complex because different solutions for the spillway and powerhouse appear

to be the optimal choice. The TAB is content with the expertise of the team undertaking these analyses and the direction that they are getting. Some additional field work is also being commissioned to reassess some of the critical elements in the model. Ultimately sensitivity studies of response to various inputs will assist in the judgement associated with making the optimal choice. While quantitative forecasts are of value, one must be cautious about over-reliance on predicted numbers, and judgement will need to be exercised.

It is most likely that a trial of excavation and in-situ response will be necessary to assist in confirming the final choices. Time is limited to execute such measures and consideration should be given to designing such a trial, that might be applicable to both choices at this time.

4.5 Response to Question 5

5. Does the TAB have any comment on the requirement of the additional lower drainage tunnel, as this introduces significant risk to the project due to the requirement for additional tunneling?

Precedent in Canada and abroad has established drainage as the most effective and cost efficient method for slope stabilization. The highly sensitive reaction experienced on BP25 to drilling water from an exploratory borehole demonstrated the potential effect of infiltration associated with reservoir filling at Site C. The recent evaluation of alternative measures for assuring the required safety factors for the Right Bank slopes has demonstrated the important benefit offered by drainage.

Adding a lower drainage tunnel, the required mechanical resistance could be lowered for the most efficient drainage case considered from 15 to 8 MN/m for the powerhouse block and from 14 to 7 MN/m for the spillway block. In this situation, particular importance has to be attached to the reduction of infiltration and to the implementation of a dependable drainage system. If the mechanical stabilization will provide the required support of 14 to 15 MN/m without relying on the lower drainage tunnel, the tunnel can be kept as an option for future risk management. This should be resolved within the next few months. The TAB recognizes the need to demonstrate the reliability of the pump system required to operate the lower drainage tunnel under the normal loading case.

Some of the issues associated with the complexity of drainage are discussed as follows.

Discharge of the existing Right Bank Drainage Tunnel (RBDT) was low. The 1989 pumping test with a discharge of only about 0.1 l/s indicated a low storativity and produced a narrow, steep drawdown cone. As these observations imply, a moderate discharge will notably lower the hydraulic head but an extensive system of drains may be required to capture that discharge. The 2013 Independent Senior Review Report had

anticipated this condition and had recommended densely spaced drain holes. Geological and hydrogeological information, subsequently obtained and specifically derived from geological conditions revealed during construction and from the response of the rock mass to excavation and grouting, has brought out further, significant complexities in the hydrogeological regime. Some particular features are to be mentioned:

- Geological details – shears, specific bedding planes and major relaxation joints – importantly control the hydrogeological regime. Shears and bedding planes are likely to produce a hydrogeological compartmentalization.
- The aquifer is highly inhomogeneous. Lithological units differ substantially in rock mass fabric and this condition in turn affects the magnitude of the permeability.
- The permeability is highly anisotropic.
- The permeability cannot be expected to be constant. Change of stress regime may open existing discontinuities and even create new discontinuities, which are prone to channel substantial percolation and promote propagation of pore pressures.
- The current groundwater regime is characterized by notable downward gradients. With the filling of the reservoir, this condition may change drastically.

These conditions require an intricate drainage system and the option to make adjustments to cope with experienced performance. Accordingly, the TAB recognizes that the construction of an additional, deeper drainage tunnel may prove to be of value. The alternative of shafts with radial drains does not offer the same flexibility.

A further reason to have an additional tunnel is the maintenance. The pyrite content in the shale is prone to produce limonite (as seen in many places at surface seeps) with the potential obstruction of the drains. Maintenance will be required and the deep tunnel will facilitate such action.

The drainage system will have to contain risks potentially associated with the designed seepage barriers. The membrane in the bottom of the approach channel could be punctured, torn or detached from the lateral fixation and the grout curtain may develop local defects. Such events may require rapid adjustments in the drainage system. The additional tunnel will allow such action.

A hydrogeological model had been elaborated in 2012. The data obtained from the construction works call for a thorough actualization of this model. The model will help to support the assumptions made in the design of the mechanical supports (anchors,

shear wall, piles). But with the above outlined complexities the model cannot be expected to render a simple and detailed projection of the coupled geohydraulic and mechanical changes resulting from reservoir filling. It can nevertheless serve to explore different scenarios and will help in the interpretation of observed effects, the assessment of need for remedial action and will assist in selecting the most appropriate actions.

Important concern relates to the construction of the additional tunnel because of the difficulties experienced with the driving of the existing Right Bank Drainage Tunnel and with the time schedule. If a bottle neck should materialize, an option for management of the corresponding risk would be to provide for construction of pumped wells, similar to those that temporarily substituted for the delayed RBDT. Drill rigs, casing and power supply would have to be mobilized on short notice.

4.6 Response to Question 6

6. Does the TAB have any comment on the status of the studies on the foundation conditions for the earthfill dam?

Arising from the new findings at the Right Bank, it was timely to undertake an updated assessment of the design of the earthfill dam, particularly related to its foundation. This was presented to the TAB for review on May 8, 2020.

The update contained: 1) a review of the foundation geology, 2) a review of the shear strength mobilized along bedding planes, 3) a review of the rock mass strength, 4) a consideration of the model adopted to forecast pore pressures, 5) stability analyses in both two and three dimensions, 6) an assessment of Right Bank deformations, and 7) a summary of the proposed path forward utilizing the observational method.

New information had become available not only from the Right Bank investigation, but also from studies for the design of the cofferdam by the Contractor and from foundation responses. This has resulted in improved foundation characterization leading to some minor changes in excavation for the dam core trench. Shear strength characterization is little changed from that adopted in design but knowledge of deeper weak bedding planes has revealed some potential reduction in Factor of Safety without involving three-dimensional considerations. There has been increasing reliance on three-dimensional restraints in practice and the TAB is of the view that they can be adopted at Site C, given precedence elsewhere. There has been limited advance with respect to pore pressure response during construction. Stability analyses have assumed that they will dissipate during construction, prior to reservoir filling and this remains a matter of observational confirmation.

One matter of conceptual advance in the design of the earthfill dam is the re-casting of the design in terms of a Most Likely Case (which is the business case and has a Factor

of Safety of 1.5) and the Reasonable Worst Case (which is the contingency case and has a Factor of Safety of 1.1). Observations during construction will be designed to discover whether conditions consistent with the Reasonable Worst Case might be developing. Invoking a Factor of Safety of 1.1 limits the opportunity for unacceptable deformations to develop while a Factor of Safety acceptable for operating conditions is being restored. The updated design has demonstrated that adding downstream berms is one practical method to increase stability if warranted.

Based on this updated review and extension of the observational method to formally recognize both the Most Likely Case and the Reasonable Worst Case, the TAB is content with the status of the studies on the foundation conditions for the earthfill dam and the proposed way forward.

5. Additional Commentary

5.1 Tracking Log

The TAB is satisfied that the Tracking Log is being updated and maintained, and recommends that it is continued to be reviewed by the EDT periodically for it to function as an accurate record of actions and any related explanations.

5.2 Hillside drainage over the spillway area

Internal drainage in the upper part of the Right Bank hillside, above tailwater level, is envisaged by means of horizontal drilling from downstream and through the RCC buttresses. In the case of the spillway this would have to be extended though the conventional chute concrete. During the design stages of the project there was some debate about whether aeration was needed on the spillway chutes to mitigate against the future risk of cavitation damage under flow. It was eventually concluded that it would instead, be sufficient to ensure the provision of smooth, sound flow surfaces. The TAB therefore considers that any hillside drainage in the spillway should be located such that it extends and exits through chute walls rather than any hydraulic flow surfaces. Exit points though the chute surfaces could lead to future localized erosion/cavitation damage, access to them for future drain inspection and maintenance could lead to chute damage and lastly any seepages coming from them onto the chute surfaces will be unsightly. These issues are recognized by the EDT and are being addressed.

6. Future Meetings

The TAB recommends that the next TAB meeting be virtual and held October 19 to 22, 2020. In addition, TAB update teleconferences will convene as follows: June 24, 2020, July 8, 2020 and July 20, 2020. Other conference calls will be scheduled as required.

Respectfully submitted,

[redacted]

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[redacted]

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Attachment A – Technical Update Conference Calls Agendas

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
10 February 2020
8:00am to 11:30am PST

Location: [redacted] **Vancouver, BC**

AGENDA

1. Load cases RCC Buttresses
    a. DBM
        i. Acceptance criteria
        ii. Review current cases
        iii. Proposed load cases
    b. Strength
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    a. Options and path forward
3. Review status of right bank changes
    a. Core buttress stability during construction & dam buttress
    b. RCC buttresses construction joints details – waterstops update
    c. Right bank additional instrumentation
4. Earthfill dam and Stage 2 upstream cofferdam update
5. Open discussion

Call-In Information
Conference Call:
[redacted]

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
27 March 2020
8:00am to 11:30am PDT

Location: Conference Call and Screenshare

AGENDA

1. Project Update and Objectives [redacted]
2. Right Bank Foundation
    a. Geological Model Update [redacted]
    b. Stability, Drainage and Drainholes [redacted]
    c. Remediation measures
        i. Shear Key [redacted]
        ii. Piles [redacted]
        iii. Anchors [redacted]
        iv. Dragging plate [redacted]
        v. Summary Table [redacted]
        vi. 3D effect [redacted]
    d. Decision Matrix [redacted]
3. Core Buttress stability during construction [redacted]
4. Earthfill Dam in the Right Bank Core Trench Area – Update [redacted]
5. Open discussion

Call-In Information

[redacted]

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
2 April 2020
8:00am to 12:00am PDT

Location: Conference Call and Screenshare

DRAFT AGENDA

1.	Project Update and Objectives for 2nd Meeting	(15 min)
2.	Earthfill Dam Foundation	(1 hr)
3.	Discussion on alternates and feedback on questions	(45 min)
4.	Reporting and feedback from TAB (TAB & Chris Anderson) via zoom TBD. (TAB only)	(90 min)

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
8 May 2020
8:00am to 12:00am PDT

Location: Conference Call and Screenshare

AGENDA

1. Project Update [redacted] (15 min)
2. Earthfill Dam
   a. Foundation and Design Approach [redacted] (2 hrs)
   b. Discussion (30 min)
3. Stage 2 Cofferdams – Update [redacted] (15 min)

Break 11:00 to 11:15am

4. Powerhouse and Spillway
   a. Alternatives Evaluation [redacted] (30 min)
   b. Drainage Layout [redacted] (15 min)

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
15 May 2020
8:00am to 12:00am PDT

Location: Conference Call and Screenshare

AGENDA

1. Site Update
2. Workplan on shear wall concept
3. MAA update
4. Stage 2 cofferdam
5. Discussion

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
1 June 2020
8:00am to 12:00am PDT

Location: Conference Call and Screenshare

AGENDA

1. Project Update & Schedule
2. MAA Update
3. Key Outstanding Technical Matters
4. Planning for week of June 8th
5. Discussion

Attachment B – Meeting Agenda

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board Meeting No. 22
June 8 to 12, 2020

Location: Conference Call (via Webex and Teams)

AGENDA

Day 1 (8 June 2020 – 7:45am to 12pm)*

Please join early and test you system.

8am

1. Project Update [redacted]

9am

2. Right Bank Foundation
   a) Spillway – Shear Walls 3D Modelling [redacted]
   b) Powerhouse – Pile 3D Modelling [redacted]
   c) Shear Walls Reserve Capacity and Excavations [redacted]
   d) Reserve Capacity Anchor [redacted]
   e) MAA – Update (Day 1 of 2) [redacted]

Day 2 – 9 June 2020 (8am to 12pm)*

1. MAA Discussion Continued [redacted]
2. Approach Channel – Design Changes [redacted]
3. Diversion Tunnels – Update [redacted]
4. Stage 2 Cofferdams – Pile Trial [redacted]
5. Discussion

* Breaks will be determined based on progress during meeting.

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board Meeting No. 22
June 8 to 12, 2020

Location: Conference Call (via Webex and Teams)

Day 3 – 10 June 2020 (8am to 12pm)

Discussion on “Questions to the Board”

Open Discussion and TAB Report preparation

Day 4 – 11 June 2020 (8am to 12pm), (Teams Meeting)

TAB Report preparation

Day 5 – 12 June 2020 (8am to 12pm)

TAB Report preparation

Attachment B - List of Meeting Attendees

TAB Members:

[redacted]

BC Hydro:

[redacted]

Other:

[redacted]

Site C Engineering:

[redacted]

Site C Clean Energy Project

Technical Advisory Board Meeting No. 23

Report

(October 19 - 22, 2020)

October 2020

Table of Contents

List of Attachments

1. Introduction

The 23rd meeting of the Site C Technical Advisory Board (TAB) was convened via Webex conference calls between October 19 and October 22, 2020. The meeting did not include a site visit. The primary objectives were to assess the progress and performance of the project, as well as review some recent design re-assessments. Technical considerations focussed primarily on the Main Civil Works (MCW).

1.1 Meeting Organization

Since the last meeting, Meeting No. 22 in June 2020, the TAB has convened for a number of technical updates via Webex which are recorded in the following documents:

1. Notes from other technical updates for the periods of June 24, July 8, July 20, August 14 and September 8, 2020. These notes are filed on the TAB Sharepoint site and are available on request.

The agendas for all of these technical updates are included in Attachment A.

The agenda for this meeting is included as Attachment B.

Meeting No. 23 focussed on:

- Foundation measures for the Right Bank structures
- Design changes of the Approach Channel
- The Earthfill Dam which included an excavation and grouting update, instrumentation monitoring during RCC Buttress placement and shear key excavation, upstream and downstream Stage 2 cofferdams update and instrumentation recommendations
- Generating Station and Spillways update

Attachment C is a list of attendees during the meeting. A debriefing is scheduled to be conducted with members of the Project Team and Executives of BC Hydro (BCH), the Project Assurance Board and the Independent Engineer on October 28, 2020.

The TAB wishes to acknowledge the excellent overviews and presentations that it received. It recognizes the substantial effort that goes into the preparation for the TAB meeting and the technical update conference calls. It appreciates the frank and informative discussions that took place during the meetings.

2. Project Update

The TAB received a project update that included the following:

- The Project is essentially up and running after the slowdown due to Covid in the Spring
- The Site Safety is within accepted bounds
- Quality performance is being managed very well and indicating better control than previous reviews
- The river diversion has been accomplished. This is a significant milestone, and the TAB congratulates the Project on this achievement
- The cofferdams are being raised and completed to their final elevations
- Field testing for the proposed large diameter piles at the spillway and powerhouse has begun with the drilling for the first lateral load test

Presentations to the TAB concentrated on the following:

- Design of the Approach Channel
- Design milestones for the foundation enhancements for the powerhouse and spillway
- Progress on the earthfill dam
- Photographs of the various facilities
- Aerial Field Trip of the Site

3. Questions to the TAB

Six questions were put to the TAB:

1. *Does the TAB have any comments regarding the concepts and details currently under development for the Approach Channel?*

2. *Does the TAB have any comment on the recommendation for additional drainage provisions from the RCC Buttress and existing Right Bank Drainage Tunnel?*

3. *Is the TAB satisfied with the project team's recommendation to increase stability of the Power Buttress and Spillway Buttress with large diameter laterally loaded piles?*

4. *Is the TAB satisfied that the proposed foundation enhancements will achieve design criteria consistent with those recommended by the Canadian Dam Association and other established international practice?*

5. *Is the TAB satisfied with the proposed design process flow for optimization of the pile requirements?*

6. *Does the TAB believe the information presented to date from the u/s cofferdam (pile installation, grouting and piezometric response) and the core trench (mapping , grouting and performance monitoring) supports the Most Likely Case for design or is the trend towards the Reasonably Worse Case for the earthfill dam?*

Detailed responses to these questions are presented below.

The TAB has also provided some additional comments in Section 5.

4. Technical Commentary

4.1 Response to Question 1

1. *Does the TAB have any comments regarding the concepts and details currently under development for the Approach Channel?*

Stability analyses of the buttresses indicated that sliding stability could be significantly enhanced by reducing the upstream hydrostatic head from reservoir level to the invert level of the approach channel. This was achieved by relocating the upstream grout curtain from the upstream side of the buttresses, to a point 50m further upstream into the approach channel and also by enhancing the security of that 50m of approach channel foundation against infiltration from above. The latter was achieved by changing the waterproofing membrane system from a “Coletanche” type into a proprietary “Carpi” system. This involves a multiple layer system capable of improved capacity for extension and for spanning significant foundation openings should they occur. Further into the Approach Channel the waterproofing membrane system is under review and, pending further information, may see the Coletanche membrane in that zone change to HDPE.

Conceptually this change goes hand-in-hand with improved drainage measures to the foundation rock in the 50m zone behind the re-located grout curtain and immediately below the approach channel invert, which is also discussed in response to the next question below.

For convenience the 50m zone with enhanced waterproofing is currently referred to as region 1. In general, the waterproofing is based on a geosynthetic drainage element between separate waterproof geomembranes. This transitions into a granular collector zone. There the waterproofing comprises two multiple membrane systems which in turn “sandwich” an intermediate drainage layer of crushed gravel. This is drained into the main intake and spillway gallery systems. Region 1 is compartmentalized so that significant local leakages would be contained and could possibly be remediated by local grouting. This aspect of the design is currently under study. A further drained gravel layer is also currently envisaged below this system, sited directly on the foundation rock and draining separately into the galleries.

At the upper end of the approach channel the foundations are protected by a triple line of grouting from a gallery extension to the current core buttress grouting gallery. A waterproof door will be provided to normally isolate the extension gallery. The line of triple grouting then extends along the approach channel at the upstream limit of region 1, from a grouting plinth which finally passes via a dogleg, to the auxiliary spillway. The final invert level of the approach channel varies, and both the grouting gallery and plinth are located at the edge of region 1, where the invert decreases by 1.4m.

The TAB has followed the development of the current proposals and their justification based on the part they play in enhancing the overall security and stability of the system of buttresses. The TAB therefore endorses the current proposals and also the further development and refinement of the associated details.

The TAB would emphasize the need for simplicity, where possible, for robustness and also for ease of construction against a tight, end of project, time frame. The TAB also fully endorses the proposed failure mode analysis (FMA) currently being proposed as a means of further refinement. In terms of the final protective layer this would include hydraulic effects such as differential pressure development, debris impact and debris removal, and bearing in mind possible future maintenance arrangements for all components. Outputs from such an analysis could then be used to inform a value engineering exercise to develop final solutions.

The TAB has developed a number of detailed considerations that might be regarded as optimization for future development. They have been communicated separately to the Design Team.

4.2 Response to Question 2

2. *Does the TAB have any comment on the recommendation for additional drainage provisions from the RCC Buttress and existing Right Bank Drainage Tunnel?*

The geotechnical analysis at the design stage had identified the decisive importance of the control of pore pressure and seepage forces in the right abutment, based on a reasonably conservative interpretation of available information and existing experience. Many case histories demonstrate the effectiveness and reliability of drainage systems in the stabilization of reservoir slopes and dam foundations.

At Site C, to achieve the required effect, the infiltration into the right abutment was to be controlled by a surface sealing along the approach channel and a deep grout curtain into rock. Because of the predicted sensitive reaction of the abutment rock, the basic stage of the drainage system with the Right Bank Drainage Tunnel (RBDT) was to be provided at the commencement of construction work.

The eventually observed response of the right abutment rock to changes in geohydraulic loads and geotechnical stresses during the initial stages of construction prompted a re-analysis of the right abutment stability and a Multiple Account Analysis (MAA) was carried out to find an optimized solution for possible remediation. Drainage figured as an indispensable component in this context and the MAA ultimately focused on two options: the addition of a drainage tunnel located below Bedding Plane 33e or the limitation to an enhancement of the drainage system of the existing RBDT. To obtain the full effect of the additional tunnel at depth, permanent pumping would have to be provided. Such a system is in operation over long periods of time on other projects but the MAA showed disadvantages with the need for substantial underground excavation and the cost for operation and maintenance. Also a possible boost to the RBDT system by shafts with sub-horizontal drains (for selectively capturing seepage from bedding planes and local permeable layers in the rock mass) would have imposed additional mining.

In this situation, the introduction of directional drilling by the design team offers a positive solution which copes with constraints affecting other alternatives considered in the MAA. The recognition of this technique has made a significant contribution to the flexibility of the design of the drainage measures. The accuracy and constructability of the proposed procedure should be demonstrated by a trial installation from the Buttress Gallery.

In view of the above deliberations the TAB appreciates and supports the recently proposed amendment to the right bank drainage system. In this context the TAB wants to mention the following aspects:

- Drainage is a widely used, proven and efficient method for stabilization of foundations and slopes. At Site C, the pumping tests demonstrated the feasibility of managing pressures along bedding planes, which is a primary objective on the right abutment.
- The efficiency of drainage can reliably be monitored by measurement of discharge and pore pressures.
- The system, as currently envisaged, is flexible and can be adjusted if and where required.
- Drainage systems are robust and resilient. Favorable performance in relation with seismic loads has been experienced.

The conceptual design shows the sub-horizontal drains spaced on 8 to 10m and concentrating on Bedding Planes 18 and 25. This is reasonable but will have to be confirmed and possibly amended, as implied by the effects observed during construction.

Aspects that still may need further scrutiny would relate to the stability of the boreholes and the need for screening and the hazard of incrustation and its prevention. Maintenance has to be facilitated. Frost protection of the drains issuing at the surface is envisaged.

Instrumentation adequate for verification of the effects of ongoing construction works and subsequent performance of the drainage system is recognized.

With the filling of the reservoir, pore pressures could rise along the bedding planes located below the RBDT. In that event, drains could help to keep those pressures close to the invert of the tunnel. If warranted, there would still be the possibility to add deep pumped wells drilled from the RBDT.

Once the repairs of the support in the RBDT are completed, work in the tunnel could proceed without interference with other activities on site. The directional drilling from the surface may have to be coordinated with other activities going on near the respective locations.

4.3 Response to Question 3

3. *Is the TAB satisfied with the project team's recommendation to increase stability of the Power Buttress and Spillway Buttress with large diameter laterally loaded piles?*

The TAB is satisfied with the Project Team's recommendation to increase the stability of the Power Buttress and Spillway Buttress with large diameter laterally loaded piles.

As a result of recent information and understanding of the foundation conditions within the Right Bank, the Site C Design Team has investigated several foundation enhancements options to increase the stability of the right bank powerhouse and spillways buttresses.

Since it was and is a very complex condition to analyze both geologically and structurally, an evaluation was conducted using a Multiple Accounts Analysis. This process helps establish an optimal solution to meet the project objectives; dam safety, regulatory, and engineer of record requirements; and achieve owner and operator acceptance. The optimal solution considers construction safety, the long-term quality of the project infrastructure, technical risk, constructability, operability, schedule and cost.

The MAA was conducted on both the Powerhouse and Spillway Buttresses and considered several options to increase the stability of the structures. Various options were considered to reduce the driving forces, such as controlling the water load on the structures by introducing drainage facilities and others introduced restraining forces such as anchors and tendons. Still others considered structural foundation features developed within the structures and anchored within the rock foundations, such as shear walls and piles.

The TAB was a part of the review team and met on a bi-weekly basis over the past several months to discuss and add experience with the response of the site rock considerations

and testing, both analytically and physically. As a result of the detailed analysis (MAA), during several months of study and collaboration, the optimal solution of utilizing large diameter laterally loaded piles was selected – a decision that the TAB fully agrees with.

4.4 Response to Question 4

4. *Is the TAB satisfied that the proposed foundation enhancements will achieve design criteria consistent with those recommended by the Canadian Dam Association and other established international practice?*

The design criteria for the dams, both concrete and earth fill, are set out in the Design Basis Memorandum (DBM). This establishes the criteria required by BC Hydro to ensure overall safety and the commitment by the Design Team to meet them. The specific criteria of intent here are the target factors of safety which reflect the reserve resistance of the structures against failure. Different load cases are also specified that must be investigated. The criteria and load cases are consistent with international practice and practice recommended by the Canadian Dam Association.

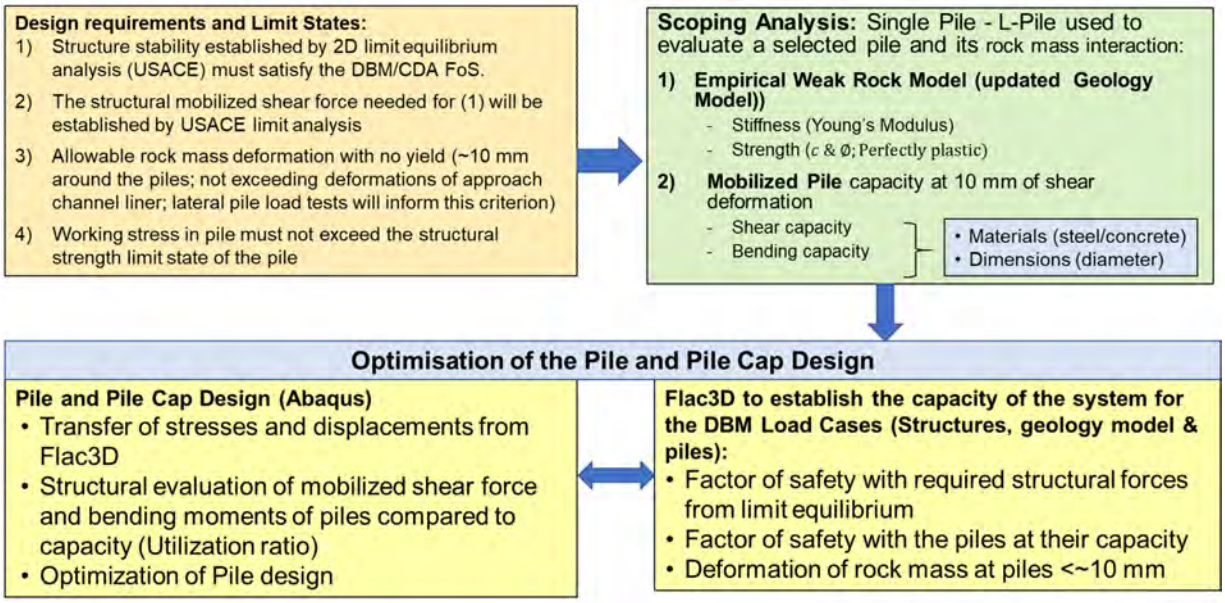
It has been a pre-condition that all foundation enhancements that have been considered in any detail must satisfy the design criteria. The evolution of the selected enhancement strategies is documented in a report on the structured decision analyses based on the Multiple Account Analysis methodology. In this procedure, a distinction is made between “musts” and “wants”. Not violating the design criteria, as reflected by the DBM, is categorized as a “must”.

Therefore, the TAB is satisfied that the proposed foundation enhancements will achieve design criteria consistent with those recommended by the Canadian Dam Association and other established international practices.

4.5 Response to Question 5

5. *Is the TAB satisfied with the proposed design process flow for optimization of the pile requirements?*

The proposed design process flow for optimization of the pile requirements is shown in the figure below which is drawn from the presentation received by the TAB. It illustrates the migration of the design from consideration of the geotechnical conditions and pile interaction to one of structural design of the pile group system, optimization of the configuration and considerations of constructability, leading to drawings and specifications.



The last element of the geotechnical/pile interaction phase is currently being addressed by the large scale lateral loading tests, simulating pile behaviour, currently underway. This will allow finalization of representative data to complete the geotechnical/pile interaction-analysis. Results for this phase of concept design can be used as inputs to structural design of the piles and optimization of their design and group layout.

In the view of the TAB, this is an appropriate design process flow for optimization of the pile requirements. The structural optimization phase can be initiated at this time while the geotechnical/pile interaction phase is being completed. The TAB recommends that a progress report on this next phase of the design and its plans for optimization be presented at the next teleconference meeting of the TAB, scheduled for November 18, 2020.

4.6 Response to Question 6

6. *Does the TAB believe the information presented to date from the u/s cofferdam (pile installation, grouting and piezometric response) and the core trench (mapping , grouting and performance monitoring) supports the Most Likely Case or is the trend towards a Reasonably Worse Case for the earthfill dam?*

The status of the studies on the foundation conditions for the earthfill dam was last reviewed and discussed in Report No. 22, submitted in June 2020. As presented, best practice for the design and construction of dams on clay shale foundations employs the observational method in a precautionary-based design. A distinction is made in design between the Most Likely Case (MLC) which is the basic business case and requires a Factor of Safety under operational conditions of 1.5 and the Reasonably Worst Case

(RWC) which is evaluated to recognize the residual uncertainties that exist prior to construction and requires a Factor of Safety of 1.1. The RWC is evaluated to ensure that no uncontrollable displacements could develop while a contingency design is implemented to provide adequate reserve resistance for the service conditions. The development of the required mitigation measures is part of the RWC design assessment.

To date, no information from any studies on performance observations have been obtained to modify the design basis for the earthfill dam. Observations and assessment of performance have always been part of the design. Comprehensive monitoring of deformation and pore pressure are being adopted and if either indicate that conditions are leading to the RWC condition, downstream slope-flattening is recognized as a proven mitigation measure in such cases and would most likely be favoured. Depending on the detailed response, additional advanced deformation analyses might be undertaken to assess the consequences of the trends observed.

However, at the right abutment of the dam, the powerhouse restricts the opportunity to invoke such measures to a large extent and tolerable deformations are more restricted. Recent construction for the earthfill dam indicates that foundation movements are directed toward the river valley, and not toward the powerhouse. These are favourable observations. Nevertheless, consistent with precautionary-based design, it would be prudent to assess local structural details at the powerhouse service bay boundary that would accommodate additional foundation deformations if they were to occur in this direction. However, deformations in this critical direction are already restrained by three-dimensional effects which limit the scale and likelihood of the need for any mitigation.

5. Additional Commentary

5.1 Tracking Log

The TAB has been informed that the Tracking Log is being updated and maintained, and will be transmitted to the TAB and will be reviewed in the near future.

5.2 Diversion Tunnel Performance

The TAB was pleased to note the good hydraulic performance of the tunnels and also that these are being monitored, and the TAB looks forward to an update at future meetings.

5.3 Downstream Ice Front Formation

The TAB was informed of recent analyses of ice formation downstream of the dam that indicated the migration of an ice front is not anticipated to be a credible factor in the design of the downstream cofferdam.

6. Future Meetings

The TAB recommends that the next TAB meeting be virtual and tentatively held May 10 to 13, 2021. In addition, TAB update teleconferences will convene as follows: November 18, 2020, December 21, 2020, January 27, 2021, and February 24, 2021. Other conference calls will be scheduled as required.

Respectfully submitted,

[redacted]

[redacted]

[redacted]

[redacted]

Attachment A – Technical Update Conference Calls Agendas

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
23 June 2020

Location: Conference Call and Screenshare

AGENDA

1. Powerhouse and Spillway – Serviceability Criteria [redacted]
2. Powerhouse and Spillway 3D Modelling [redacted]
3. Spillway Piles Design [redacted]
4. High Capacity Anchors
    i. Load Transfer to Rock/RCC [redacted]
    ii. Bond Resistance and Case Histories [redacted]
5. Discussion

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
08 July 2020

Location: Conference Call and Screenshare

AGENDA

1. Project update [redacted]
2. MAA Update [redacted]
3. Shear Walls and Piles 3D Modelling - Update [redacted]
4. Spillway and Powerhouse Investigations [redacted]
5. Powerhouse Pile Arrangement [redacted]
6. Shear Walls and Piles – Structural Design Philosophy [redacted]
7. Shoreline Landslides Monitoring Update [redacted]

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
20 July 2020

Location: Conference Call and Screenshare

AGENDA

1. Project update [redacted]
2. Spillway RCC Buttress
    a) 3D Modelling – Comparison of Shear Walls vs. Piles [redacted]
    b) MAA Update [redacted]
    c) Recommendation and Path Forward
    d) Pile Testing [redacted]
3. RCC Buttresses – Overview and Performance Update [redacted]

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
14 Aug 2020

Location: Conference Call and Screenshare

AGENDA

1. Project update [redacted]
2. Powerhouse RCC Buttress
    a) MAA Update [redacted]
    b) Geological Model and Pressuremeter Tests Update [redacted]
    c) Piles 3D Modelling Results [redacted]
    d) RCC Powerhouse and Pile Cap Structural Connexion [redacted]
    e) Tailrace Revised Excavation [redacted]
    f) Tailrace Hydraulic Modelling [redacted]
    g) Pile Test Program Update [redacted]
3. Approach Channel Liner [redacted]
4. RCC Buttresses – Overview and Performance Update [redacted]

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Conference Call
08 September 2020

Location: Conference Call and Screenshare

AGENDA

1. Project update and diversion closure status [redacted]
2. Powerhouse RCC Buttress
   a) MAA Update [redacted]
3. Spillway and Powerhouse
   a) BPs Strength – 3D back analysis [redacted]
   b) Lateral Load Testing Program [redacted]
   c) Scoping Analysis for Lateral Load Test [redacted]
4. Approach Channel [redacted]
5. Earthfill Dam
   a) Grouting Update [redacted]
   b) Additional Instrumentation [redacted]
   c) Zone 1 Compaction Equipment [redacted]

Attachment B – Meeting Agenda

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Meeting No. 23
19 to 22 October 2020

Location: Conference Call and Screenshare

AGENDA

Day 1 – 19 October 2020

1. Project Update [redacted]
2. Project Quality [redacted]
3. RCC Overview and Performance Update [redacted]
4. Right Bank Foundation
   a) Pressuremeter Results Update [redacted]
   b) BP 33e Shear Strength – 3D Back Analysis [redacted]
   c) Design Approach [redacted]
   d) Schedule and Construction Sequence [redacted]
5. Approach Channel – Design Changes
   a) Liner System [redacted]

Day 2 – 20 October 2020

1. Update on Ice front Criteria [redacted]
2. Approach Channel – Design Changes
   a) Grouting gallery and plinth [redacted]
   b) Drainage [redacted]
   c) Grouting [redacted]
3. Earthfill dam
   a) Excavation and Grouting Update [redacted]
   b) Instrumentation Monitoring during Dam and Core RCC Buttress Placement and Shear Key Excavation [redacted]
   c) Upstream and Downstream Stage 2 Cofferdams Update [redacted]
   d) Instrumentation Recommendations [redacted]

BC Hydro
Power smart

Site C Clean Energy Project
Technical Advisory Board
Meeting No. 23
19 to 22 October 2020

Location: Conference Call and Screenshare

Day 3 – 21 October 2020

1. Generating Stations and Spillway Design
   a) GSS Structural works [redacted]
   b) Turbines and Generators [redacted]
   c) Hydromechanical Equipment [redacted]
   d) Balance of Plant [redacted]

Other discussions
Discuss questions to the TAB [redacted]
TAB Prepare Report

Day 4 – 22 October 2020

TAB Prepare Report [redacted]

Attachment B - List of Meeting Attendees

TAB Members:

[redacted]

BC Hydro:

[redacted]

Other:

[redacted]

Site C Engineering:

[redacted]

BC Hydro
Power smart

Site C Clean Energy Project

Annual Progress Report No. 5
(Combined with Quarterly Progress Report No. 20)

Appendix E

Environmental Management Plans and Report

As a result of the Environmental Assessment Certificate and the Federal Decision Statement conditions, the Site C Clean Energy Project is required to submit a number of plans and reports to various agencies. These plans and reports are posted on the Site C Project website at www.sitecproject.com as they are issued. This appendix contains a list of all issued documents as at December 31, 2020.

Table E-1 Mitigation, Management and Monitoring Plans

Aboriginal Plant Use Mitigation Plan	https://www.sitecproject.com/sites/default/files/Aboriginal_Plant_Use_Mitigation_Plan.pdf
Aboriginal Training and Inclusion Plan	https://www.sitecproject.com/sites/default/files/Aboriginal_Training_and_Inclusion_Plan.pdf
Accidents and Malfunctions Plan	https://www.sitecproject.com/sites/default/files/Accidents_and_Malfunctions_Plan.pdf
Agricultural Mitigation and Compensation Plan	https://www.sitecproject.com/sites/default/files/site-c-agricultural-mitigation-compensation-plan-final-september-2017.pdf
Agricultural Mitigation and Compensation Plan Framework	https://www.sitecproject.com/sites/default/files/SiteC-Agriculture-Mitigation-Compensation-Framework.pdf
Agricultural Monitoring and Follow-up Program	https://www.sitecproject.com/sites/default/files/Agricultural%20Monitoring%20and%20Follow-up%20Program.pdf
Business Participation Plan	https://www.sitecproject.com/sites/default/files/BPP-20150605.pdf
Construction Environmental Management Plan	https://www.sitecproject.com/sites/default/files/Construction%20Environmental%20Management%20Plan%20%28CEMP%29%20%20Rev%207.pdf
Construction Safety Management Plan	https://www.sitecproject.com/sites/default/files/Construction%20Safety%20Management%20Plan.pdf
Cultural Resources Mitigation Plan	https://www.sitecproject.com/sites/default/files/Cultural_Resources_Mitigation_Plan_0.pdf
Del Rio Pit Development Plan	https://www.sitecproject.com/sites/default/files/Del%20Rio%20Pit%20Development%20Plan.pdf
Emergency Services Plan	https://www.sitecproject.com/sites/default/files/Emergency_Services_Plan.pdf
Fisheries and Aquatic Habitat Management Plan	https://www.sitecproject.com/sites/default/files/Fisheries_and_Aquatic_Habitat_Management_Plan.pdf

Fisheries and Aquatic Habitat Monitoring and Follow-up Program	https://www.sitecproject.com/sites/default/files/Fisheries-and-Aquatic-Habitat-Monitoring-and-Follow-up-Program.pdf
Health Care Services Plan	https://www.sitecproject.com/sites/default/files/Health_Care_Services_Plan.pdf
Heritage Resources Management Plan	https://www.sitecproject.com/sites/default/files/Heritage_Resources_Management_Plan_0.pdf
Housing Plan and Housing Monitoring and Follow-up Program	https://www.sitecproject.com/sites/default/files/Housing-Plan-Housing-Monitoring-and-Follow-up-Program-Rev2.pdf
Labour and Training Plan	https://www.sitecproject.com/sites/default/files/Labour_and_Training_Plan.pdf
Outdoor Recreation Mitigation Plan	https://www.sitecproject.com/sites/default/files/site-c-outdoor-recreation-mitigation-plan_0.pdf
Recreation Program	https://www.sitecproject.com/sites/default/files/Recreation%20Program.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan	https://www.sitecproject.com/sites/default/files/Veg_and_Wildlife_Mit_and_Mon_Plan.pdf
Vegetation Clearing and Debris Management Plan	https://www.sitecproject.com/sites/default/files/Veg_Clearing_and_Debris_Mgmt_Plan.pdf
West Pine Quarry Development Plan	https://www.sitecproject.com/sites/default/files/West_Pine_Quarry_Development_Plan.pdf
Wuthrich Quarry Development Plan	https://www.sitecproject.com/sites/default/files/Wuthrich_Quarry_Development_Plan.pdf
85th Avenue Industrial Lands Detailed Operations Plan	https://www.sitecproject.com/sites/default/files/Final-Detailed-Operations-Plan-85th%20Ave%20Industrial%20Lands-20161122.pdf

Table E-2 Site C Project Reports

Aboriginal Group Communication Plan 2015-2016 Annual Report	https://www.sitecproject.com/sites/default/files/Report-annual-Aboriginal-Group-Communication-Plan-2015-2016-20160705.pdf
Aboriginal Group Communication Plan 2016-2017 Annual Report	https://www.sitecproject.com/sites/default/files/aboriginal-group-communications-plan-2016-2017-annual-report.pdf
Aboriginal Group Communication Plan 2017-2018 Annual Report	https://www.sitecproject.com/sites/default/files/Aboriginal-Group-Communications-Plan-2017-2018-Annual-Report.pdf
Aboriginal Group Communication Plan 2018-2019 Annual Report	http://sitecproject.com/sites/default/files/aboriginal-group-communications-plan-2018-2019-annual-report.pdf
Aboriginal Group Communication Plan 2019-2020 Annual Report	http://sitecproject.com/sites/default/files/Aboriginal%20Group%20Communications%20Plan%202019-2020%20Annual%20Report.pdf
Aboriginal Plant Use Mitigation Plan 2015-2016 Annual Report	https://www.sitecproject.com/sites/default/files/Report-annual-Aboriginal-Plant-Use-Mitigation-Plan-2015-2016-20160705.pdf

Aboriginal Plant Use Mitigation Plan 2016-2017 Annual Report	https://www.sitecproject.com/sites/default/files/aboriginal-plant-use-mitigation-plan-2016-2017-annual-report.pdf
Aboriginal Plant Use Mitigation Plan 2017-2018 Annual Report	https://www.sitecproject.com/sites/default/files/aboriginal-plant-use-mitigation-plan-2017-2018-annual-report_0.pdf
Aboriginal Plant Use Mitigation Plan 2018-2019 Annual Report	http://sitecproject.com/sites/default/files/aboriginal-plant-use-mitigation-plan-2018-2019-annual-report.pdf
Aboriginal Plant Use Mitigation Plan 2019-2020 Annual Report	http://sitecproject.com/sites/default/files/Aboriginal%20Plant%20Use%20Mitigation%20Plan%202019-2020%20Annual%20Report.pdf
Aboriginal Training and Inclusion Plan 2015-2016 Annual Report	https://www.sitecproject.com/sites/default/files/Report-annual-Aboriginal-Training-Inclusion-Plan-2015-2016-20160705.pdf
Aboriginal Training and Inclusion Plan 2016-2017 Annual Report	https://www.sitecproject.com/sites/default/files/aboriginal-training-inclusion-plan-2016-2017-annual-report.pdf
Aboriginal Training and Inclusion Plan 2017-2018 Annual Report	https://www.sitecproject.com/sites/default/files/Aboriginal-Training-and-Inclusion-Plan-2017-2018-Annual-Report.pdf
Aboriginal Training and Inclusion Plan 2018-2019 Annual Report	http://sitecproject.com/sites/default/files/aboriginal-training-and-inclusion-plan-2018-2019-annual-report.pdf
Aboriginal Training and Inclusion Plan 2019-2020 Annual Report	http://sitecproject.com/sites/default/files/Aboriginal%20Training%20and%20Inclusion%20Plan%202019-2020%20Annual%20Report.pdf
Accidents and Malfunctions Plan 2015 Annual Report	https://www.sitecproject.com/sites/default/files/Annual-Update-Accidents-and-Malfunctions-Plan-2015.pdf
Accidents and Malfunctions Plan 2016 Annual Update	https://www.sitecproject.com/sites/default/files/accidents-malfunctions-plan-2016.pdf
Accidents and Malfunctions Plan 2017 Annual Update	https://www.sitecproject.com/sites/default/files/accidents-malfunctions-plan-annual-update-2017_0.pdf
Accidents and Malfunctions Plan 2018 Annual Update	http://sitecproject.com/sites/default/files/accidents-and-malfunctions-plan-2018-annual-update.pdf
Accidents and Malfunctions Plan 2019 Annual Update	http://sitecproject.com/sites/default/files/Accidents%20and%20Malfunctions%20Plan%202019%20Annual%20Report.pdf
Acid Rock Drainage and Metal Leachate Management Plan – Water Quality Annual Report 2015	https://www.sitecproject.com/sites/default/files/Annual-Update-Water-Quality-2015-FDS-Condtion-7-5_0.pdf
Acid Rock Drainage and Metal Leachate Management Plan – Water Quality Annual Report 2016	https://www.sitecproject.com/sites/default/files/acid-rock-drainage-metal-water-quality-annual-report-2016.pdf
Acid Rock Drainage and Metal Leachate Management Plan – Water Quality Annual Report 2017	https://www.ceaa.gc.ca/050/documents/p63919/122317E.pdf

Acid Rock Drainage and Metal Leachate Management Plan – Water Quality Annual Report 2018	Part 1: http://sitecproject.com/sites/default/files/acid-rock-drainage-and-metal-leachate-management-plan-water-quality-2018-annual-report-part-1.pdf Part 2: http://sitecproject.com/sites/default/files/acid-rock-drainage-and-metal-leachate-management-plan-water-quality-2018-annual-report-part-2.pdf
Acid Rock Drainage and Metal Leachate Management Plan – Water Quality Annual Report 2019	Part 1: http://sitecproject.com/sites/default/files/Acid%20Rock%20Drainage%20and%20Metal%20Leachate%20Management%20Plan%20-%20Water%20Quality%202019%20Annual%20Report%20Part%201.pdf Part 2: http://sitecproject.com/sites/default/files/Acid%20Rock%20Drainage%20and%20Metal%20Leachate%20Management%20Plan%20-%20Water%20Quality%202019%20Annual%20Report%20Part%202.pdf Part 3: http://sitecproject.com/sites/default/files/Acid%20Rock%20Drainage%20and%20Metal%20Leachate%20Management%20Plan%20-%20Water%20Quality%202019%20Annual%20Report%20Part%203.pdf
Agricultural Monitoring and Follow-up Program 2016 Annual Report	https://www.sitecproject.com/sites/default/files/Agricultural-Monitoring-Annual-Report-2016.pdf
Agriculture Monitoring and Follow-up Program 2017 Annual Report	https://www.sitecproject.com/sites/default/files/agriculture-monitoring-annual-report-2017.pdf
Agriculture Monitoring and Follow-up Program 2018 Annual Report	https://www.sitecproject.com/sites/default/files/Ag-Monitoring-Annual-Report-2018.pdf
Agriculture Monitoring and Follow-up Program 2019 Annual Report	http://sitecproject.com/sites/default/files/Agriculture-Monitoring-Annual-Report-2019.pdf
Agriculture Monitoring and Follow-up Program 2020 Annual Report	http://sitecproject.com/sites/default/files/Agriculture%20Monitoring%20and%20Follow-up%20Program%202020%20Annual%20Report.pdf
Air Quality Management Plan 2015 Annual Report	https://www.sitecproject.com/sites/default/files/Appendix-A-RWDI-Site-C-Climate-and-Air-Quality-Monitoring-Annual-Report-2015.pdf
Air Quality Management Plan 2016 Annual Report	https://www.sitecproject.com/sites/default/files/climate-air-quality-annual-report-2016.pdf
Air Quality Management Plan 2017 Annual Report	https://www.sitecproject.com/sites/default/files/Air-Quality-Management-Plan-2017-Annual-Report.pdf
Air Quality Management Plan 2018 Annual Report	http://sitecproject.com/sites/default/files/Air-Quality-Management-Plan-2018-Annual-Report.pdf
Air Quality Management Plan 2019 Annual Report	http://sitecproject.com/sites/default/files/Air%20Quality%20Management%20Plan%202019%20Annual%20Report.pdf
Annual Compliance Report - Status of Compliance with EAC Conditions and Schedule B – 2015-2016	https://projects.eao.gov.bc.ca/api/document/5b0722d24972950024b6e21c/fetch

Annual Compliance Report – Status of Compliance with EAC Conditions and Schedule B – 2016-2017	https://projects.eao.gov.bc.ca/api/document/5a9dc9f66f07af0024d5a246/fetch
Annual Compliance Report – Status of Compliance with EAC Conditions and Schedule B -2017-2018	https://projects.eao.gov.bc.ca/api/document/5b328d38d46d3f002426863f/fetch
Annual Compliance Report – Status of Compliance with EAC Conditions and Schedule B -2018-2019	https://projects.eao.gov.bc.ca/api/public/document/5e962222491d620025cfafae/download/Site%20C%20-%202020-03-31Annual%20Compliance%20Self-Report.pdf
Business Participation Plan 2015-2016 Annual Report	https://www.sitecproject.com/sites/default/files/business-participation-plan-annual-report-july-29-2016.pdf
Business Participation Plan 2016 – 2017 Annual Report	https://www.sitecproject.com/sites/default/files/business-participation-plan-annual-report-year-two-july-2017.pdf
Business Participation Plan 2017 - 2018 Annual Report	https://www.sitecproject.com/sites/default/files/Business-Participation-Plan-Annual-Report-July-27-2018.pdf
Business Participation Plan 2018 - 2019 Annual Report	http://sitecproject.com/sites/default/files/business-participation-plan-annual-report-20190726.pdf
Business Participation Plan 2019 - 2020 Annual Report	http://sitecproject.com/sites/default/files/2019-2020-Annual-Report-Business-Participation-Plan.pdf
Construction Communications 2015-2016 Annual Report	https://www.sitecproject.com/sites/default/files/Site-C-Construction-Communications-Annual-Report-2016.pdf
Construction Communications 2016 – 2017 Annual Report	https://www.sitecproject.com/sites/default/files/site-c-construction-communications-annual-report-july-2017.pdf
Construction Communications 2017 - 2018 Annual Report	https://www.sitecproject.com/sites/default/files/Site-C-Construction-Communications-Annual-Report-July-2018.pdf
Construction Communications 2018 - 2019 Annual Report	http://sitecproject.com/sites/default/files/Site-C-Construction-Communications-2018-2019-Annual-Report.pdf
Construction Communications 2019 - 2020 Annual Report	http://sitecproject.com/sites/default/files/2019-2020-Site-C-Construction-Communications-Annual-Report.pdf
Cultural Resources Mitigation Plan 2015 Annual Report	https://www.sitecproject.com/sites/default/files/Report-annual-Cultural-Resources-Mitigation-Plan-2015-2016-20160705.pdf
Cultural Resources Mitigation Plan 2016-2017 Annual Report	https://www.sitecproject.com/sites/default/files/cultural-resources-mitigation-plan-2016-2017-annual-report.pdf
Cultural Resources Mitigation Plan 2017-2018 Annual Report	https://www.sitecproject.com/sites/default/files/Cultural-Resources-Mitigation-Plan-2017-2018-Annual-Report.pdf
Cultural Resources Mitigation Plan 2018-2019 Annual Report	http://sitecproject.com/sites/default/files/cultural-resources-mitigation-plan-2018-2019-annual-report.pdf
Cultural Resources Mitigation Plan 2019-2020 Annual Report	http://sitecproject.com/sites/default/files/Cultural%20Resources%20Mitigation%20Plan%202019-2020%20Annual%20Report.pdf

Fisheries and Aquatic Habitat Management Plan 2015-2016 Annual Report	https://www.sitecproject.com/sites/default/files/Annual-Report-Fisheries-Aquatic-Habitait-Managment-Plan-2015-2016.pdf
Fisheries and Aquatic Habitat Management Plan 2016-2017 Annual Report	https://www.sitecproject.com/sites/default/files/fisheries-aquatic-habitat-management-plan-annual-report-2016.pdf
Fisheries and Aquatic Habitat Management Plan 2017 Annual Report	https://www.sitecproject.com/sites/default/files/fisheries-aquatic-habitat-management-plan-annual-report-2017_0.pdf
Fisheries and Aquatic Habitat Management Plan 2018 Annual Report	http://sitecproject.com/sites/default/files/fisheries-and-aquatic-habitat-management-plan-2018-annual-report.pdf
Fisheries and Aquatic Habitat Management Plan 2019 Annual Report	http://sitecproject.com/sites/default/files/Fisheries%20and%20Aquatic%20Habitat%20Management%20Plan%202019%20Annual%20Report.pdf
Fisheries and Aquatic Habitat Monitoring and Follow Up Program 2015-2016 Annual Report	https://www.sitecproject.com/sites/default/files/fisheries-aquatic-habitat-monitoring-follow-up-program-annual-report.pdf
Fisheries and Aquatic Habitat Monitoring and Follow up Program 2017 Annual Report	https://www.sitecproject.com/sites/default/files/report-annual-fahmfp-2017-20180301.pdf
Fisheries and Aquatic Habitat Monitoring and Follow up Program 2018 Annual Report	http://sitecproject.com/sites/default/files/Fisheries-and-Aquatic-Habitat-Monitoring-and-Follow-Up-Program-2018-Annual-Report.pdf
Fisheries and Aquatic Habitat Monitoring and Follow up Program 2019 Annual Report	http://sitecproject.com/sites/default/files/Fisheries%20and%20Aquatic%20Habitat%20Monitoring%20and%20Follow-up%20Program%202019%20Annual%20Report.pdf
Heritage Resources Management Plan 2015 Annual Report	https://www.sitecproject.com/sites/default/files/Report-annual-BCH-to-CEAA-Heritage-Rsrcs-Mgt-Plan-20160705.pdf
Heritage Resources Management Plan 2016 Annual Report	https://www.sitecproject.com/sites/default/files/heritage-resource-management-plan-annual-report-2016.pdf
Heritage Resource Management Plan 2017 Annual Report	https://www.sitecproject.com/sites/default/files/Heritage-Resource-Management-Plan-2017-Annual-Report.pdf
Heritage Resource Management Plan 2018 Annual Report	http://sitecproject.com/sites/default/files/heritage-resources-management-plan-2018-annual-report.pdf
Heritage Resource Management Plan 2019 Annual Report	http://sitecproject.com/sites/default/files/Heritage%20Resources%20Management%20Plan%202019%20Annual%20Report.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2015 Annual Report	https://www.sitecproject.com/sites/default/files/vegetation-and-wildlife-mitigation-and-monitoring-plan-annual-report-2015.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2015 Annual Report Appendices Part 1	https://www.sitecproject.com/sites/default/files/vegetation-and-wildlife-mitigation-and-monitoring-plan-annual-report-2015-appendices-part-1.pdf

Vegetation and Wildlife Mitigation and Monitoring Plan 2015 Annual Report Appendices Part 2	https://www.sitecproject.com/sites/default/files/vegetation-and-wildlife-mitigation-and-monitoring-plan-annual-report-2015-appendices-part-2.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2016 Annual Report	https://www.sitecproject.com/sites/default/files/vegetation-wildlife-mitigation-monitoring-plan-2016.pdf
Vegetation Wildlife Mitigation and Monitoring Plan 2017 Annual Report	https://www.sitecproject.com/sites/default/files/vegetation-wildlife-mitigation-monitoring-plan-annual-report-2017.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2017 Annual Report Appendices Part 1	https://www.sitecproject.com/sites/default/files/vegetation-wildlife-mitigation-monitoring-plan-annual-report-2017-appendices-part-1_0.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2017 Annual Report Appendices Part 2	https://www.sitecproject.com/sites/default/files/vegetation-wildlife-mitigation-monitoring-plan-annual-report-2017-appendices-part-2_0.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2017 Annual Report Appendices Part 3	https://www.sitecproject.com/sites/default/files/vegetation-wildlife-mitigation-monitoring-plan-annual-report-2017-appendices-part-3.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2017 Annual Report Appendices Part 4	https://www.sitecproject.com/sites/default/files/vegetation-wildlife-mitigation-monitoring-plan-annual-report-2017-appendices-part-4.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2017 Annual Report Appendices Part 5	https://www.sitecproject.com/sites/default/files/vegetation-wildlife-mitigation-monitoring-plan-annual-report-2017-appendices-part-5.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2018 Annual Report	Part 1: http://sitecproject.com/sites/default/files/vegetation-and-wildlife-mitigation-and-monitoring-plan-2018-annual-report-part-1.pdf Part 2: http://sitecproject.com/sites/default/files/vegetation-and-wildlife-mitigation-and-monitoring-plan-2018-annual-report-part-2.pdf
Vegetation and Wildlife Mitigation and Monitoring Plan 2019 Annual Report	Part 1: http://sitecproject.com/sites/default/files/Vegetation%20and%20Wildlife%20Mitigation%20and%20Monitoring%20Plan%202019%20Annual%20Report%20Part%201.pdf Part 2: http://sitecproject.com/sites/default/files/Vegetation%20and%20Wildlife%20Mitigation%20and%20Monitoring%20Plan%202019%20Annual%20Report%20Part%202.pdf

BC Hydro
Power smart

Site C Clean Energy Project

Annual Progress Report No. 5
(Combined with Quarterly Progress Report No. 20)

Appendix F

Environmental Assessment Certificate
Annual Compliance Report

Environmental Assessment Certificate #E14-02 Annual Compliance Report

Site C Clean Energy Project
March 31, 2020

Site C Clean Energy Project
Status of Compliance with the Conditions of the EAC #E14-02
March 31, 2020

Background

The Site C Clean Energy Project (the Project) will be the third dam and generating station on the Peace River that will provide up to 1,100 megawatts (MW) of capacity and about 5,100 gigawatt hours (GWh) of energy each year to the province's integrated electricity system. On October 14, 2014, the BC Provincial Minister of Environment and Minister of Forests, Lands and Natural Resource Operations decided that the Project is in the public interest and that the benefits identified by the Project outweigh the risks of significant adverse environmental, social and heritage effects. The assessment leading to the conclusion noted that the effects of the Project will largely be mitigated through careful, comprehensive mitigation programs and ongoing monitoring during construction and operation.

On October 14, 2014, the Ministers issued Environmental Assessment Certificate (EAC) #E14-02 setting 77 conditions under which the Project can proceed. On November 14, 2018 and December 13, 2019 respectively, the Environmental Assessment Office added two additional conditions to the EAC, following amendments to Schedule A of the EAC (Project Description). On February 12, 2019, EAO also issued amendments to two conditions of Schedule B. Table 1 provides a list of amendments that have been made to both Schedule A (Project Description) and Schedule B (List of Conditions) of the EAC since issuance.

EAC #14-02 requires that BC Hydro submit a report to "EAO Compliance and Enforcement staff on the status of compliance with the Conditions of this Certificate, and the conditions in Schedule B … on or before March 31 in each year during construction and operation phases of the Project." The following report is being submitted in accordance with this requirement, covering the period January 1, 2019 to December 31, 2019.

Summary of Compliance

EAC #E14-02 now contains 79 conditions which comprise 617 unique requirements relating to the following areas:

- Aquatic Environment
- Fish and Fish Habitat
- Vegetation and Ecological Communities
- Wildlife Resources
- Current Use of Lands and Resources for Traditional Purposes
- Land and Resource Use
- Transportation

- Outdoor Recreation
- Community
- Human Health
- Heritage Resources
- Environmental Protections and Management
- Environmental Management Plans, Follow-up and Monitoring
- Dam Safety
- West Pine Haul Route Traffic Management
- Highway 29 Realignment – Cache Creek Segment, Noise Monitoring and Mitigation

BC Hydro has assessed compliance of conditions as a whole, as well as with the individual requirements of each condition. This assessment is based on evidence collected through a comprehensive compliance program which requires monitoring and reporting by contractors, an Independent Environmental Monitor, and by BC Hydro.

Summary of Compliance with 79 Conditions:

- No conditions have been assessed as being in non-compliance
- **11** conditions have not yet required implementation – all of the requirements in these conditions are in an initial planning stage and will be implemented at a future time, such as during reservoir filling or operations
- **67** conditions are underway and have been assessed as having requirements that are "in compliance" and are in various stages of implementation. The requirements in these conditions have either been completed, are ongoing, or are not yet required to have started, but are deemed in compliance
- One condition is underway and has been assessed as having two requirements that "partially met compliance" during the reporting year.

Summary of Compliance with 617 Requirements:

Table 2 summarizes the status of compliance with each of the requirements in the 79 conditions of EAC #E14-02. The table shows that the total 615 requirements are assessed as being in compliance and two requirements within one condition as being partially compliant.

These two partially compliant requirements are found in Condition #3, regarding Water Quality. Specifically, the requirements pertain to the Comptroller of Water Rights Order under Section 93 of the *Water Sustainability Act*, issued to BC Hydro on February 27, 2019, regarding the implementation of Care of Water measures to address the release of potentially acid generating rock into the Peace River. In accordance with this Order, BC Hydro worked with its contractors to increase the holding capacity and effectiveness of the care of water system and to remove the weathered acidic rock to reduce the potential for exceedance events. However, the order is still open with the CWR and BC Hydro is working with the contractor to address one item regarding the construction of a diversion ditch for the approach channel.

Summary of Inspections by EAO:

BC Hydro was inspected by Regulatory Agencies multiple times during the reporting period, including eight inspections by the Environmental Assessment Office. These written inspection reports included 14 separate findings of non-compliance related to site specific and often isolated issues, such as missing spill trays, erosion and sediment control, and waste management. BC Hydro responded to each finding of non-compliance, corrected the deficiency, and provided evidence of this correction to the Environmental Assessment Office.

Summary of Inspections by BC Hydro:

BC Hydro has developed an Active Compliance Management Tool (ACMT), to monitor, track and report on compliance with environmental conditions and commitments for the Project. The ACMT includes a mobile inspection tool that provides geography-specific and theme-specific record of environmental compliance at site. In June 2017 BCH launched the ACMT on the Site C Project, enhancing the ability to share inspection results with contractors and driving environmental compliance.

Between January 1, 2019 to December 31, 2019 BC Hydro used the ACMT to inspect 45,556 inspection results against conditions of the Environmental Assessment Certificate #E14-02 (EAC), for the Site C Project. Of the 16 categories described in the EAC #E14-02, the ACMT currently inspects against the following 9 categories:

- Aquatic Environment
- Community
- Environmental Management Plans, Follow-up and Monitoring
- Fish and Fish Habitat
- Heritage Resources
- Human Health
- Transportation
- Vegetation and Ecological Communities
- Wildlife Resources

Table 3 details a summary of compliance and deficiencies, against EAC #E14-02, identified by BC Hydro using the ACMT from January 1, 2019 to December 31, 2019. From the 45,556 inspection results, BC Hydro was able to verify the compliance status against 104,579 EAC requirements. BC Hydro recorded compliance against 99,127 (95%) of these compliance statements and identified 5452 (5%) deficiencies.

BC Hydro actively worked with its contractors to remedy these deficiencies. Most deficiencies are corrected when identified in the field, and some deficiencies are corrected following formal communication between BCH and responsible contractors. As of December 31, 2019, 156 of the deficiencies identified between January 1, 2019 to December 31, 2019 were open.

Table 1. List of Amendments to EAC #E14-02

Amendment No.	Issued	Amendment to EAC #E14-02
1	March 12, 2018	Amends Schedule A (Project Description) Sections 4.3.1, 4.3.1.4 and 4.3.1.5 of Schedule A regarding the design of the Generating Station and Spillway as follows: • The location of the transformers changed from the draft tube deck to upstream of the generator units on the transformer deck • the spillway design changed from seven gates to three radial gates and six low level outlets • the discharge capacity changed from 10,100 m3/s at the maximum normal reservoir level and 17,300 m3/s at the maximum flood level to 11,000 m3/s at the maximum normal reservoir level and 16,700 m3/s at the maximum flood level
2	October 26, 2018	Amends Schedule A (Project Description) Section 4.3.4.1 and Figure 4.32 of Schedule A to increase the length of the Halfway River Bridge from 305m up to 1,100m in length, eliminate the causeway, and increase the number of bridge piers up to 19.
3	November 14, 2018	Amends Schedule A (Project Description) Section 4.3.5.2.3 and 4.3.5.2.4, Table 4.7 and 4.9 of Schedule A to permit the use West Pine Quarry, in addition to Portage Mountain Quarry, as a source of excavated material for the construction of Highway 29 realignment, Hudson's Hope shoreline protection, and areas along the reservoir requiring protection during reservoir filling.
		Amends Schedule B (Conditions) in response to Amendment #3 above to require that BC Hydro develop a Traffic Management Plan for the West Pine Quarry Haul Route, in consultation with Saulteau First nations, West Moberly First Nations, the District of Hudson's Hope, the District of Chetwynd, and the Ministry of Transportation and Infrastructure.
4	February 12, 2019	Amends Schedule B Conditions #4 and #13 to maintain a 15 m machine free zone adjacent to watercourses during reservoir clearing, except where worker safety prohibits manual tree falling and vegetation removal methods and as addressed in a site-specific prescription prepared and endorsed by a QEP. The rationale for the safety exemption must be documented in the prescription.

Amendment No.	Issued	Amendment to EAC #E14-02
5	December 13, 2019	Amends Schedule A (Project Description) Section 4.3.4.1, Table 4.5 to reflect a longer bridge and no causeway for the crossing of Highway 29 realignment at Cache Creek. Also amends the design of the overall alignment of this segment, per Figure 4.33 of the EAC.
		Amends Schedule B (Conditions) in response to Amendment #5 above to require that BC Hydro develop a Noise Monitoring Plan to assess potential vehicle traffic noise impacts from the Highway 29 realignment at Cache Creek to the sweat lodge (the receiver location) identified in the application to amend the Certificate. The plan must be developed in consultation with West Moberly First Nations.
6	December 13, 2019	Amends Section 4.3.6, and subsections, to reflect the expansion of the worker accommodation to permit up to 2,400 workers during peak periods.

Table 2. Summary of Compliance with Requirements of EAC #E14-02 Conditions

Area	Category	# of Conditions	Total # of Requirements	# of Future Requirements	# of Requirement "In Compliance" or "Partial Compliance" (Completed or Ongoing)	# of Requirements "In Non-Compliance"
Aquatic Environment	Hydrology	1	11	11	0	0
	Fluvial Geomorphology and Sediment	1	17	0	17	0
	Water Quality	1	12	0	12	0
Fish and Fish Habitat	Fish and Fish Habitat	4	52	26	26	0
Vegetation and Ecological Communities	Vegetation and Ecological Communities	7	67	0	67	0
Wildlife Resources	Wildlife Resources	10	64	0	64	0
Current Use of Lands and Resources for Traditional Purposes	Current Use of Lands and Resources for Traditional Purposes	4	20	2	18	0
Land and Resource Use	Harvest of Fish and Wildlife	1	2	0	2	0
	Agriculture	2	25	0	25	0
	Other Resource Industries	3	13	6	7	0
Transportation	Transportation	4	41	0	41	0

Area	Category	# of Conditions	Total # of Requirements	# of Future Requirements	# of Requirement "In Compliance" or "Partial Compliance" (Completed or Ongoing)	# of Requirements "In Non-Compliance"
Outdoor Recreation and Tourism	Outdoor Recreation and Tourism	3	15	3	12	0
Community	Community Infrastructure and Services	6	31	6	25	0
	Housing	2	18	0	18	0
	Regional Economic Development	6	34	1	33	0
Human Health	Potable and Recreational Water Quality	1	3	1	2	0
	Ambient Air Quality	1	11	1	10	0
	Noise and Vibration	2	14	1	13	0
	Methylmercury	1	13	13	0	0
Heritage Resources	Visual Resources	1	4	0	4	0
	Physical Heritage and Cultural Heritage	3	22	4	18	0
Environmental Protection and Management	GHG Monitoring	1	7	7	0	0

Area	Category	# of Conditions	Total # of Requirements	# of Future Requirements	# of Requirement "In Compliance" or "Partial Compliance" (Completed or Ongoing)	# of Requirements "In Non-Compliance"
Environmental Management Plans, Follow-up and Monitoring	Environmental Management Plans, Follow-up and Monitoring	10	98	21	77	0
Dam Safety	Dam Safety	2	3	3	0	0
West Pine Haul Route Traffic Management Plan	West Pine Haul Route Traffic Management Plan	1	13	0	13	0
Highway 29 Realignment – Cache Creek Segment, Noise Monitoring and Mitigation	Highway 29 Realignment – Cache Creek Segment, Noise Monitoring and Mitigation	1	7	3	4	0
TOTAL		**79**	**617**	**120**	**497**	**0**

Table 3. ACMT results against EAC #E14-02 from January 1, 2019 to December 31, 2019.

Area	# of Inspection Results	# of Identified Compliance Results	# of Identified Partial Deficiency Results	# of Identified Deficiency Results	% of Compliance
Aquatic Environment	4,831	4,351	351	129	90%
Community	13,869	12,895	705	269	93%
Environmental Management Plans, Follow-up and Monitoring	54,600	51,548	2,196	856	94%
Fish and Fish Habitat	2,936	2,785	103	48	95%
Heritage Resources	3,234	3,194	40	0	99%
Human Health	6,903	6,832	60	11	99%
Transportation	1,82	182	0	0	100%
Vegetation and Ecological Communities	5,615	5,397	187	31	96%
Wildlife Resources	12,409	11943	293	173	96%
TOTAL	**104,579**	**99,127**	**3,935**	**1,517**	**95%**

Acronyms and Abbreviations

APUMP	Aboriginal Plan Use Mitigation Plan
CEAA	Canadian Environmental Assessment Act
CEMP	Construction Environmental Management Plan
CMHC	Canada Mortgage and Housing Corporation
CRMP	Cultural Resources Mitigation Plan
CSMP	Construction Safety Management Plan
DFO	Department of Fisheries and Oceans Canada
EAC	Environmental Assessment Certificate
EAO	Environmental Assessment Office
EPP	Environmental Protection Plan
FAHMFP	Fisheries and Aquatic Habitat Management Follow-up Program
FAHMP	Fisheries and Aquatic Habitat Management Plan
FLNR	Ministry of Forests, Lands, Natural Resource Operations and Rural Development
FNHA	First Nations Health Authority
GHG	Greenhouse Gas
HRMP	Heritage Resources Management Plan
IEM	Independent Environmental Monitor
IWMAMP	Invasive Weed Mitigation and Adaptive Management Plan
MOE	Ministry of Environment
MOTI	Ministry of Transportation and Infrastructure
MOU	Memorandum of Understanding
NHA	Northern Health Authority
OEMP	Operations Environmental Management Plan
OHWM	Ordinary High-Water Mark
PAG	Potentially Acid Generating
PRRD	Peace River Regional District
QEP	Qualified Environmental Professional
QP	Qualified Professional
SARA	Species at Risk Act
RAA	The Regional Assessment Area
RSEM	Relocated Surplus Excavated Material
RVMA	Riparian Vegetation Management Area
TSFA	Terrain Stability Field Assessments
TSS	Total Suspended Solids
TU	Treatment Unit
VCDMP	Vegetation Clearing and Debris Management Plan
VWMMP	Vegetation and Wildlife Mitigation and Monitoring Plan
VWTC	Vegetation and Wildlife Technical Committee
WHIMS	Workplace Hazardous Materials Information System

Site C Clean Energy Project
Annual Compliance Report for Environmental Assessment Certificate #E14-02
Covering period January 1, 2019 to December 31, 2019
Submitted March 31, 2020

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	AQUATIC ENVIRONMENT			
	Hydrology			
EAC 01	The EAC Holder must address potential risks to infrastructure downstream of the Site C dam as far as Peace River, Alberta caused by low flows, caused by the Project, during reservoir filling and operation by implementing the following measures:	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro has entered into agreements with the downstream communities that have identified potential infrastructure impacts and established commitments to monitor and/or mitigate impacts. Additionally, BC Hydro continues to collect present state field data to inform future changes and associated downstream impact assessments. In preparation for reservoir filling, BC Hydro is using the river diversion flow changes to gain more information on flow reduction effects to downstream infrastructure. BC Hydro is working with representatives from the Alberta government to coordinate communications on downstream flow during diversion.
EAC 01	· The Holder must maintain a minimum release of 390 cubic meters per second from the Site C dam	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro has included this requirement within the design of the generating station and spillways and overall operation of the dam. BC Hydro will be developing an Owner's Operation, Maintenance and Surveillance Manual that will also include this requirement during the operating period.
EAC 01	· The Holder must estimate downstream flows at minimum, average and maximum rates of reservoir filling in order to identify the approach that would minimize impacts on downstream flows and water level conditions.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro has included this requirement within the design of the generating station and spillways and overall operation of the dam. BC Hydro will be developing an Owner's Operation, Maintenance and Surveillance Manual that will also include this requirement.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 01	· The Holder must work with the Government of Alberta to jointly develop an Adaptive Management Plan to manage potential risks to infrastructure downstream of the Site C dam to the Town of Peace River, Alberta caused by low water flows during reservoir filling and operation of the Project. For the purposes of the Plan infrastructure must include water intakes, ferry crossings and any other activities identified by the Proponent and the Government of Alberta.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro has shared downstream flow estimates for the river diversion stage with the Government of Alberta. BC Hydro plans to coordinate the summer/fall 2020 diversion with the Government of Alberta through a communication plan developed with Alberta's input. Prior to reservoir filling, BC Hydro will undertake further consultation with the Government of Alberta in an effort to mitigate potential risks to downstream infrastructure.
EAC 01	· The Plan must include at least the following: Provisions for assessing potential risks to infrastructure caused by low water flows as a result of the Project;	Initial Planning	Future Requirement	BC Hydro is working with the Government of Alberta representatives to assess potential risks to infrastructure caused by river diversion. This effort is expected to inform plans for reservoir filling.
EAC 01	· Provisions for obtaining baseline and operational flow information;	Initial Planning	Future Requirement	BC Hydro is working with the Government of Alberta representatives to assess baseline and operational flow information ahead of river diversion. This effort is expected to inform plans for reservoir filling.
EAC 01	· Provisions for obtaining information on any current impacts to infrastructure attributable to low water flows caused by the Project;	Initial Planning	Future Requirement	BC Hydro is working with the Government of Alberta representatives to identify any impacts to infrastructure associated with river diversion. This effort is expected to inform plans for reservoir filling.
EAC 01	· Identification of any impacts to infrastructure attributable to low water flows caused by the Project; and	Initial Planning	Future Requirement	BC Hydro is working with the Government of Alberta representatives to identify any impacts to infrastructure associated with river diversion. This effort is expected to inform plans for reservoir filling.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 01	· The Mitigation measures such as additional flow regulation, adjustment to Alberta infrastructure and notifying the Government of Alberta of prolonged low water flow conditions, necessary to avoid or minimize impacts attributable to low water flows caused by the Project.	Initial Planning	Future Requirement	BC Hydro is working with the Government of Alberta representatives to identify any impacts to infrastructure associated with river diversion. This effort is expected to inform plans for reservoir filling.
EAC 01	The EAC Holder must submit the plan to EAO a minimum of 30 days prior to reservoir filling.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 01	The EAC Holder must implement the Plan and report on the results annually to EAO commencing from reservoir filling to the end of year 5 of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
	Fluvial Geomorphology and Sediment Transport			
EAC 02	The EAC Holder must manage adverse Project effects on water quality by managing erosion and sediment transport, as detailed in an Erosion Prevention and Sediment Control Plan.	Ongoing	In Compliance	The Erosion and Sediment Control Plan is described in Section 4.4 of the Construction Environmental Management Plan (CEMP). The CEMP contains Appendix I and J, which provide details on the Project's erosion and sediment control requirements, including the requirement for Contractors to retain their own Erosion and Sediment Control QPs.
EAC 02	The Erosion Prevention and Sediment Control Plan must be developed by a Qualified Environmental Professional (QEP).	Complete	In Compliance	The CEMP requires that contractors identify and isolate work areas to prevent sediment from entering the downstream environment. BC Hydro audits compliance with this requirement by reviewing contractor Environmental Protection Plans (EPPs) and conducting environmental audits during construction to verify implementation of EPPs.
EAC 02	The Plan must identify areas of high erosion and sediment potential. The Erosion Prevention and Sediment Control Plan must include at least the following:	Ongoing	In Compliance	The CEMP requires that Contractor EPPs identify water management plans to control runoff and direct it away from work areas where excavation, soil placement and staging activities occur. BC Hydro audits compliance with these requirements by reviewing contractor EPPs and conducting environmental audits during construction to verify

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				implementation of EPPs.
EAC 02	· Manage water (e.g. rainfall, snowmelt,) to control runoff and direct it away from work areas where excavation, spoil placement, and staging activities occur.	Ongoing	In Compliance	The CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of the EPP.
EAC 02	· Adjust the timing of construction activities to coincide with periods of high background sediment levels.	Ongoing	In Compliance	The CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of the EPP.
EAC 02	· Use clean rock materials for riprap construction.	Ongoing	In Compliance	The CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of the EPP.
EAC 02	· Manage equipment production rates during construction to reduce sediment generation.	Ongoing	In Compliance	The CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of the EPP.
EAC 02	· Identify and isolate work areas to prevent sediment from entering the downstream environment.	Ongoing	In Compliance	BC Hydro is implementing and adhering to the final Erosion Prevention and Sediment Control Plan as well as additional commitments including quality inspections and regular reporting on plan progress. This program involves Qualified Erosion and Sediment Control Professionals who review work areas for Erosion and Sediment Control risks, author prescriptions with due dates based on risk, oversee the implementation of these prescriptions, prescribe re-inspection dates, and have overall responsibility for Erosion and Sediment Control measures in their work areas. This Program was initiated in October 2016 with results reported to the EAO weekly up to late 2017 and monthly since then.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 02	· Leave stumps in place to reduce soil disturbance, erosion and sediment transport in the headpond during reservoir clearing to reduce soil disturbance and potential sedimentation issues.	Ongoing	In Compliance	The CEMP requires contractors to leave stumps in place to reduce soil disturbance, and erosion and sediment transport in the headpond during reservoir clearing. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. Note that stumps are removed for road construction associated with reservoir clearing as described in the Project's Environmental Impact Statement and Vegetation Clearing and Debris Management Plan (VCDMP). BC Hydro has determined that stump removal associated with road construction is consistent with this condition.
EAC 02	· Manage vegetation and soil stripping, taking into consideration proximity to sensitive habitats as determined by a QEP (e.g. wetlands) and slope stability.	Ongoing	In Compliance	The CEMP requires contractors to manage vegetation and soil stripping, taking into consideration proximity to sensitive habitat and slope stability as determined by a QEP. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 02	· Salvage and stockpile clean surface soils for site restoration.	Ongoing	In Compliance	The CEMP requires contractors to salvage and stockpile clean surface soils for site restoration. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. To date, several soil stockpiles have needed to be relocated due to construction modifications, and the relocation and preservation of these piles is audited by BC Hydro.
EAC 02	· Establish vegetative cover on the soils stockpiled to prevent erosion.	Ongoing	In Compliance	The CEMP requires contractors to establish vegetative cover on the soils stockpiled to prevent erosion. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. Topsoil stockpiles are monitored to assess the re- vegetation success as well as invasive occurrences by both BC Hydro and contractor QEPs.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 02	· Develop construction schedules such that reservoir clearing in the winter is maximized.	Ongoing	In Compliance	To date, reservoir clearing has coincided with winter conditions.
EAC 02	· Isolate in-stream work areas from flowing water except as permitted by the on-site environmental monitor.	Ongoing	In Compliance	BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. Some instream work has occurred on the Project in compliance with the Project's Fisheries Act Authorizations (both early works and dam construction). This work has not always been completed in isolation of the Peace river but was conducted under the supervision of the on-site environmental monitoring, and was monitored for compliance with the Fisheries Act Authorizations' severity of ill effects limits.
EAC 02	The EAC Holder must provide this draft Erosion Prevention and Sediment Control Plan to BC Ministry of Forests, Lands and Natural Resource Operations (FLNR), BC Ministry of Environment (MOE), Aboriginal Groups, Peace River Regional District, City of Fort St. John, and District of Hudson's Hope for review a minimum of 90 days prior to commencement of construction activities.	Complete	In Compliance	The Erosion and Sediment Control Plan is described in Section 4.4 of the Construction Environmental Management Plan (CEMP). This program involves Qualified Erosion and Sediment Control Professionals who review work areas for Erosion and Sediment Control risks, author prescriptions with due dates based on risk, oversee the implementation of these prescriptions, prescribe re-inspection dates, and have overall responsibility for Erosion and Sediment Control measures in their work areas. This Program was initiated in October 2016 with its results reported to the EAO weekly up to late 2017 and monthly since then.
EAC 02	The EAC Holder must file the final Erosion Prevention and Sediment Control Plan with EAO, FLNR, MOE, Aboriginal Groups, Peace River Regional District, City of Fort St. John and District of Hudson's Hope a minimum of 30 days prior to commencement of construction activities.	Complete	In Compliance	Appendix H of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 02	The EAC Holder must develop, implement and adhere to the final Erosion Prevention and Sediment Control Plan, and any amendments to the final Erosion Prevention and Sediment Control Plan, to the satisfaction of Environmental Assessment Office (EAO).	Ongoing	In Compliance	The Erosion and Sediment Control Plan is described in Section 4.4 of the Construction Environmental Management Plan (CEMP). This program involves Qualified Erosion and Sediment Control Professionals who review work areas for Erosion and Sediment Control risks, author prescriptions with due dates based on risk, oversee the implementation of these prescriptions, prescribe re-inspection dates, and have overall responsibility for Erosion and Sediment Control measures in their work areas. This Program was initiated in October 2016 with its results reported to the EAO weekly up to late 2017 and monthly since then.
	Water Quality			
EAC 03	To address potential environmental effects of acid generation and metal leaching from construction activities and reservoir creation, EAC Holder must develop a water quality monitoring program.	Ongoing	In Compliance	Section 4.14 and Appendix E of the CEMP sets out the water quality management program that contractors are required to adhere to, including associated measures to address potential effects of acid generation and metal leaching. BC Hydro audits compliance with Section 4.14 and Appendix E of the CEMP by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 03	The water quality monitoring program must include: · Identification of water quality parameters to be monitored;	Ongoing	In Compliance	CEMP Appendix E identifies water quality parameters to be monitored based on the source and type (e.g., surface water, groundwater, sediment pond water) of Potentially Acid Generating (PAG) contact water. The plan describes the monitoring frequency, duration, and parameters, which vary by monitoring sub-program. Parameters of interest for Relocated Surface Excavated Material (RSEM) discharges containing PAG have currently been identified as Cd, Co, Cu, Zn, TSS, and pH (CEMP Appendix E, Table 2), in addition to a requirement for acute toxicity testing. These parameters are subject to reassessment as the Project gathers additional information from water quality and toxicity assessments.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 03	· Identification of the geographic extent and duration of the monitoring;	Ongoing	In Compliance	Appendix E of the CEMP identifies the geographic extent and duration of the water quality monitoring requirements based on the source and type of potential PAG contact water (e.g., surface water, groundwater, sediment pond water). The plan describes the monitoring frequency, duration, and parameters, which vary by monitoring sub-program. For example, the geographic extent of the monthly Peace River water quality monitoring program extends from a control point upstream of the construction footprint to a far-field location downstream of all RSEM discharges where the Peace River and RSEM discharge is completely mixed. The duration of the monitoring corresponds with the duration of RSEM sediment pond operation and discharge, except when monitoring poses an undue risk to worker health and safety.
EAC 03	· Baseline sampling of parameters;	Ongoing	In Compliance	Baseline sampling is specific to each type of monitoring program. For example, a quarterly baseline water quality monitoring program at sampling locations in the Peace River commenced in 2015 and is ongoing. Baseline sampling at groundwater wells installed at PAG-contact RSEM facilities was conducted prior to placement of PAG at those RSEMs.
EAC 03	· Monitoring of parameters;	Ongoing	In Compliance	Surface water monitoring in the Peace River, at runoff locations at the dam site, and in PAG-contact RSEM sediment ponds (as required by the CEMP, Appendix E) is ongoing. Installation of groundwater wells at RSEM Areas R5a and R5b occurred between September and November 2016, with baseline monitoring completed shortly after installation and quarterly monitoring ongoing through 2020.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 03	· Identification of potential mitigation measures if water quality impacts observed; and	Ongoing	Partial Compliance	Potential mitigation measures to be implemented if water quality impacts are observed are described in CEMP Appendix E, Section 7.4. In 2018, a mobile water treatment facility was procured to the dam site to treat PAG- contact water for elevated metals (commissioned as of July). This facility maintained operation throughout 2019. In 2020 the contract to operate the facility was renewed for a period of 2 years, and included a provision to relocate the facility to RSEM R6 in order to accommodate planned approach channel excavation activities. For the reporting period, PAG-contact water quality exceedance events at RSEM sediment pond discharges (at RSEM R5b and RSEM R6) occur primarily during spring freshet. The Comptroller of Water Rights issued an Order under Section 93 of the Water Sustainability Act to BC Hydro on February 27, 2019, regarding the implementation of Care of Water measures to address the release of potentially acid generating rock into the Peace River. In accordance with this Order, BC Hydro worked with its contractors to increase the holding capacity and effectiveness of the care of water system and to remove the weathered acidic rock to reduce the potential for exceedance events. However, the order is still open with the CWR and BC Hydro is working with the contractor to address one item regarding the construction of a diversion ditch for the approach channel.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 03	· Process for implementing mitigation measures to address water quality impacts.	Ongoing	Partial Compliance	Potential mitigation measures to be implemented if water quality impacts are observed are described in CEMP Appendix E, Section 7.4. In 2018, a mobile water treatment facility was procured to the dam site to treat PAG- contact water for elevated metals (commissioned as of July). This facility maintained operation throughout 2019. In 2020 the contract to operate the facility was renewed for a period of 2 years, and included a provision to relocate the facility to RSEM R6 in order to accommodate planned approach channel excavation activities. For the reporting period, PAG-contact water quality exceedance events at RSEM sediment pond discharges (at RSEM R5b and RSEM R6) primarily during spring freshet. The Comptroller of Water Rights issued an Order under Section 93 of the Water Sustainability Act to BC Hydro on February 27, 2019, regarding the implementation of Care of Water measures to address the release of potentially acid generating rock into the Peace River. In accordance with this Order, BC Hydro worked with its contractors to increase the holding capacity and effectiveness of the care of water system and to remove the weathered acidic rock to reduce the potential for exceedance events. However, the order is still open with the CWR and BC Hydro is working with the contractor to address one item regarding the construction of a diversion ditch for the approach channel.
EAC 03	The EAC Holder must provide this draft water quality monitoring program to Environment Canada, Natural Resources Canada, MOE, FLNR, Aboriginal Groups, Peace River Regional District and the City of Fort St. John for review a minimum of 90 days prior to commencement of construction.	Complete	In Compliance	The Water Quality Monitoring Program is described in Section 4.14 and Appendix E - Section 7.3 of the CEMP. The draft CEMP was provided to regulatory agencies, governments and Indigenous groups on October 17, 2014.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 03	The EAC Holder must file the final water quality monitoring program with EAO, Environment Canada, Natural Resources Canada, MOE, FLNR, Aboriginal Groups, Peace River Regional District and City of Fort St. John a minimum of 30 days prior to commencement of construction.	Complete	In Compliance	The final (Revision 1) of the CEMP was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. Revision 2 of the CEMP was issued in February 2016 and Revision 4 in July 2016 (Revision 3 was not formally published). Revision 5 was issued on February 19, 2019, Revision 5.1 on April 19, 2019 and Revision 6 on July 15, 2019.
EAC 03	The EAC Holder must report on the results annually to the EAO every June 1.	Ongoing	In Compliance	A water quality report covering 2018 construction activities was submitted to the EAO on March 29, 2019. The next report (covering 2018 construction activities) will be submitted to the EAO by June 1, 2020.
EAC 03	The final water quality monitoring program must be detailed in the Acid Rock Drainage and Metal Leachate Management Plan,	Complete	In Compliance	The water quality monitoring program is described in Section 4.14 and Appendix E - Section 7.0 of the CEMP (Revision 6).
EAC 03	The EAC Holder must develop, implement and adhere to the final water quality monitoring program, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The water quality monitoring program, as outlined in Appendix E of the CEMP, is being implemented and adhered to, with responsibilities specific to BC Hydro and the Contractor as outlined. Water quality monitoring reports have been submitted annually by June 1 of each year to cover monitoring conducted in conjunction with construction in the preceding year. The next report (covering 2019 construction activities) will be submitted to the EAO on or before June 1, 2020.
	FISH AND FISH HABITAT			
EAC 04	The EAC Holder must manage harmful Project effects on fish and fish habitats during the construction and operation phases by implementing mitigation measures detailed in a Fisheries and Aquatic Habitat Management Plan.	Ongoing	In Compliance	BC Hydro developed a Fisheries and Aquatic Habitat Management Plan and is implementing measures in accordance with the plan.
EAC 04	The Fisheries and Aquatic Habitat Management Plan must be developed by a QEP.	Complete	In Compliance	Section 8.0 of the Fisheries and Aquatic Habitat Management Plan (FAHMP) lists the QEPs who prepared the plan.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 04	The Fisheries and Aquatic Habitat Management Plan must include at least the following: · Remove temporary structures as soon as they are no longer required.	Ongoing	In Compliance	Section 4.5 of the CEMP (Fisheries and Aquatic Habitat Management) requires that Contractor Environmental Protection Plans (EPPs) identify how the Contractor will remove temporary structures as soon as they are no longer required. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 04	· Maintain a 15 m machine free zone adjacent to watercourses during reservoir clearing (as measured from the Ordinary High Water Mark). · Amended in February 2019 to: "Maintain a 15 m machine free zone adjacent to watercourses during reservoir clearing (as measured from the Ordinary High Water Mark), except where worker safety prohibits manual tree falling and vegetation removal methods and as addressed in a site-specific prescription prepared and endorsed by a QEP. The rationale for the safety exemption must be documented in the prescription.	Ongoing	In Compliance	During the reporting period, Section 4.5 of the CEMP (Fisheries and Aquatic Habitat Management) required that Contractor EPPs identify that the Contractor will maintain a 15 m machine free zone adjacent to watercourses during reservoir clearing. This condition was amended in February 2019 allowing for the selective use of mechanical clearing in riparian zones where safety prohibits manual falling. BC Hydro audited compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 04	· Place material relocation sites (R5a, R5b, and R6) 15 m back from the mainstem to avoid affecting Peace River fish habitat.	Ongoing	In Compliance	Material relocation sites (R5a, R5b and R6) were designed to be at least 15 m from the mainstem of the Peace River as required by this condition.
EAC 04	· Contour mainstream bars to reduce potential for fish stranding, as advised by FLNR.	Ongoing	In Compliance	Section 6.2.1.1 of the FAHMP (Peace River Channel Contouring and Side Channel Enhancement) describes the contouring of mainstream bars associated with this condition. Initial stages of mainstem channel contouring are underway with completion expected by 2021.
EAC 04	· Incorporate fish habitat features into the final capping of material relocation sites upstream of the dam.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 04	· Contour and cap with gravels and cobble substrate the spoil area between elevations 455 m and 461 m to provide a productive	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 04	Incorporate fish habitat features into the final design of the Highway 29 roadway that would border the reservoir, east of Lynx Creek.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. Section 6.2.3.2 of the FAHMP (Highway 29 Realignment Fish Habitat) describes this requirement.
EAC 04	· Include fish habitat features (e.g., shears, large riprap point bars, etc.) in the final design of the north bank haul road bed material that would be placed in the Peace River.	Complete	In Compliance	Fish habitat features have also been incorporated into the design of the north bank haul road bed material placed in the Peace River; this work was completed in the Spring of 2016.
EAC 04	· Construct the Hudson's Hope shoreline protection with large material that will provide replacement fish habitat. Incorporate additional fish habitat features (e.g., shear zones and point bars) into the final design of the Hudson's Hope shoreline protection.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 04	· Contour Highway 29 borrow sites prior to decommissioning to provide littoral fish habitat in the reservoir.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 04	· Cap material repositioning areas with gravel and cobble, and contour to enhance fish habitat conditions.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 04	· Plant a 15 m wide riparian area along the reservoir shoreline adjacent to BC Hydro-owned farmland where necessary to provide riparian habitat and bank stabilization except as approved by the onsite environmental monitor.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 04	· Increase wetted habitat by creating new wetted channels and restoring back channels on the south bank island downstream of the dam.	Initial Planning	Future Requirement	BC Hydro substantially completed construction of the new wetted channels and restored back channels on the south bank island downstream of the dam in 2019. Section 6.2.1.1 of the FAHMP (Peace River Channel Contouring and Side Channel Enhancement) describes the plan for the new and restored back channels on the south bank island downstream of dam, associated with this condition.
EAC 04	· Enhance side channel complexes between the dam site and the confluence of the Peace and Pine rivers during low flows.	Ongoing	In Compliance	BC Hydro substantially completed construction of the new wetted channels and restored back channels on the south bank island downstream of the dam in 2019. The side channel enhancements planned for the north bank of the Peace River are under review, given geotechnical concerns associated with the landslide that occurred at these channels in 2018. Section 6.2.1.1 of the FAHMP (Peace River Channel Contouring and Side Channel Enhancement) describes the plan for the side channel enhancements, associated with this condition.
EAC 04	· Manage reservoir fluctuation within a 1.8 m maximum normal operating range from the maximum operating level of 461.8 m.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 04	· If the reservoir deviates from the normal operating range, the EAC Holder must report the event in accordance with water licence requirements.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 04	· Develop a feasible strategy for the salvage and relocation of stranded fish in habitats that are at risk of dewatering.	Ongoing	In Compliance	Section 4.5 (Fisheries and Aquatic Habitat Management) of the CEMP requires that Contractor EPPs contain a feasible strategy for the salvage and relocation of stranded fish in habitats that are at risk of dewatering. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 04	The EAC Holder must manage construction footprints to reduce the harmful Project effects on fish and fish habitat, in accordance with the conditions of the applicable Fisheries Act authorization(s) and direction provided by FLNR.	Ongoing	In Compliance	Construction footprints to reduce the harmful Project effects on fish and fish habitat are being managed in accordance with Fisheries Act authorizations 15-HPAC-00170 for site preparation activities and 15-HPAC-01160 for dam construction, reservoir preparation and filling, as well as any direction provided by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development.
EAC 04	This draft Plan must be provided to FLNR, MOE and Aboriginal Groups for review a minimum of 90 days prior to commencement of construction.	Complete	In Compliance	The Draft Fisheries and Aquatic Habitat Management Plan was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014.
EAC 04	The EAC Holder must file the Final Plan with EAO, FLNR, MOE and Aboriginal Groups a minimum of 30 days prior to commencement of construction.	Complete	In Compliance	The Final Fisheries and Aquatic Habitat Management Plan was submitted to regulatory agencies, governments, and Indigenous groups on June 1, 2015.
EAC 04	The EAC Holder must develop, implement and adhere to the Final Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The Fisheries and Aquatic Habitat Management Plan is being implemented as planned.
EAC 05	EAC Holder must manage harmful Project effects on fish during reservoir filling, turbine commissioning and operations by developing and implementing mitigation measures detailed in operational procedures developed by a QEP to:	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 05	· Minimize levels of total dissolved oxygen gas in the tailwater;	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 05	· Minimize levels of dissolved gas super-saturation	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 05	These operational procedures must be developed in consultation with FLNR and MOE prior to reservoir filling, and include monitoring activities.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 06	The EAC Holder must implement mitigation measures, as detailed in a Fish Passage Management Plan.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. The Fish Passage Management Plan included in the EIS (Volume 2 Appendix Q) describes the approach to manage fish passage. Following EAC condition 6, a revised Fish Passage Management Plan, which includes updates since submission of the EIS, was prepared by QEPs and submitted prior to Project activities that may affect upstream fish passage. The EIS (Volume 2 Section 12) identified the river diversion phase of construction as the first Project activity that is expected to affect upstream fish passage. The revised Fish Passage Management Plan takes into account input from Indigenous groups that has been received and taken, information on the progress of the design and construction of the temporary and permanent fish passage facilities, plans for the operation of the facilities, and a protocol to address genetic differences for small fish species. The plan also references the monitoring of fish movement and fish passage that is described in the Project's Fisheries and Aquatic Habitat Monitoring and Follow-up Program.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 06	The Fish Passage Management Plan must be developed by a QEP.	Complete	In Compliance	BC Hydro acknowledges and understands this condition. The Fish Passage Management Plan included in the EIS (Volume 2 Appendix Q) describes the approach to manage fish passage. Following EAC condition 6, a revised Fish Passage Management Plan, which includes updates since submission of the EIS, was prepared by QEPs and submitted prior to Project activities that may affect upstream fish passage. The EIS (Volume 2 Section 12) identified the river diversion phase of construction as the first Project activity that is expected to affect upstream fish passage. The revised Fish Passage Management Plan took into account input from Indigenous groups that has been received and taken, information on the progress of the design and construction of the temporary and permanent fish passage facilities, plans for the operation of the facilities, and a protocol to address genetic differences for small fish species. The plan also reference the monitoring of fish movement and fish passage that is described in the Project's Fisheries and Aquatic Habitat Monitoring and Follow-up Program. Progress with the EAC requirements related to Fish and Fish Habitat in 2019 helped to prepare for river diversion, which is scheduled to occur in late 2020. Monitoring of fish and fish habitat continued to document conditions prior to river diversion. As well, an updated Fish Passage Management was prepared and reviewed with Indigenous groups and fisheries agencies.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 06	The Fish Passage Management Plan must include at least the following: · Establish a periodic capture data base/protocol/methodology for small-fish species to assess genetic exchange between upstream and downstream fish populations. Data must be provided annually to the relevant federal and provincial agencies.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. The Fish Passage Management Plan included in the EIS (Volume 2 Appendix Q) describes the approach to manage fish passage. Following EAC condition 6, a revised Fish Passage Management Plan, which includes updates since submission of the EIS, was prepared by QEPs and submitted prior to Project activities that may affect upstream fish passage. The EIS (Volume 2 Section 12) identified the river diversion phase of construction as the first Project activity that is expected to affect upstream fish passage. The revised Fish Passage Management Plan took into account input from Indigenous groups that has been received and taken, information on the progress of the design and construction of the temporary and permanent fish passage facilities, plans for the operation of the facilities, and a protocol to address genetic differences for small fish species. The plan also reference the monitoring of fish movement and fish passage that is described in the Project's Fisheries and Aquatic Habitat Monitoring and Follow-up Program. Progress with the EAC requirements related to Fish and Fish Habitat in 2019 helped to prepare for river diversion, which is scheduled to occur in late 2020. Monitoring of fish and fish habitat continued to document conditions prior to river diversion. As well, an updated Fish Passage Management was prepared and reviewed with Indigenous groups and fisheries agencies.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 06	· Address genetic differences exceeding beyond a pre- defined threshold (to be determined through discussion with the agencies) by implementing a translocation program.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. The Fish Passage Management Plan included in the EIS (Volume 2 Appendix Q) describes the approach to manage fish passage. Following EAC condition 6, a revised Fish Passage Management Plan, which includes updates since submission of the EIS, was prepared by QEPs and submitted prior to Project activities that may affect upstream fish passage. The EIS (Volume 2 Section 12) identified the river diversion phase of construction as the first Project activity that is expected to affect upstream fish passage. The revised Fish Passage Management Plan took into account input from Indigenous groups that has been received and taken, information on the progress of the design and construction of the temporary and permanent fish passage facilities, plans for the operation of the facilities, and a protocol to address genetic differences for small fish species. The plan also reference the monitoring of fish movement and fish passage that is described in the Project's Fisheries and Aquatic Habitat Monitoring and Follow-up Program. Progress with the EAC requirements related to Fish and Fish Habitat in 2019 helped to prepare for river diversion, which is scheduled to occur in late 2020. Monitoring of fish and fish habitat continued to document conditions prior to river diversion. As well, an updated Fish Passage Management was prepared and reviewed with Indigenous groups and fisheries agencies.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 06	· Design the installation and use of a trap and haul facility.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. The Fish Passage Management Plan included in the EIS (Volume 2 Appendix Q) describes the approach to manage fish passage. Following EAC condition 6, a revised Fish Passage Management Plan, which includes updates since submission of the EIS, was prepared by QEPs and submitted prior to Project activities that may affect upstream fish passage. The EIS (Volume 2 Section 12) identified the river diversion phase of construction as the first Project activity that is expected to affect upstream fish passage. The revised Fish Passage Management Plan took into account input from Indigenous groups that has been received and taken, information on the progress of the design and construction of the temporary and permanent fish passage facilities, plans for the operation of the facilities, and a protocol to address genetic differences for small fish species. The plan also reference the monitoring of fish movement and fish passage that is described in the Project's Fisheries and Aquatic Habitat Monitoring and Follow-up Program. Progress with the EAC requirements related to Fish and Fish Habitat in 2019 helped to prepare for river diversion, which is scheduled to occur in late 2020. Monitoring of fish and fish habitat continued to document conditions prior to river diversion. As well, an updated Fish Passage Management was prepared and reviewed with Indigenous groups and fisheries agencies.
EAC 06	This draft Fish Passage Management Plan must be provided to FLNR, MOE and Aboriginal Groups for review a minimum of 90 days prior to Project activities that may impact upstream fish passage.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 06	The EAC Holder must file the final Fish Passage Management Plan with EAO, FLNR, MOE and Aboriginal Groups a minimum of 30 days prior to Project activities that may	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	impact upstream fish passage.			
EAC 06	The EAC Holder must develop, implement and adhere to the final Fish Passage Management Plan, and any amendments, to the satisfaction of EAO.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 07	The EAC Holder must develop a Fisheries and Aquatic Habitat Monitoring and Follow-up Program to assess the effectiveness of measures to mitigate Project effects on healthy fish populations in the Peace River and tributaries, and, if recommended by a QEP or FLNR, to assess the need to adjust those measures to adequately mitigate the Project's effects.	Ongoing	In Compliance	A Fisheries and Aquatic Habitat Monitoring and Follow-up Program (FAHMFP) was submitted to the EAO on December 22, 2015. The FAHMFP provides for: a) monitoring fish and fish habitat during construction and operation of the Site C Clean Energy Project (the Project), and b) an outline for a procedure to evaluate and implement future mitigation and compensation options during operation of the Project. The types of monitoring and the outline of procedures for evaluation and implementation required by Condition 7 of the EAC are provided for in this FAHMFP. The monitoring will provide information that can be used to assess the effectiveness of the mitigation measures described in the Fisheries and Aquatic Habitat Management Plan.
EAC 07	The Fisheries and Aquatic Habitat Monitoring and Follow-up Program must be developed by a QEP.	Complete	In Compliance	Section 7.0 of the FAHMFP lists the QEPs who prepared the program.
EAC 07	The Program must include monitoring during construction for at least the following: · Effectiveness of standard mitigation measures for reducing sedimentation and fish stranding in the construction headpond and proximal reach of the river downstream of the dam.	Ongoing	In Compliance	These requirements are addressed in Mon-3 Peace River Physical Habitat Monitoring and Follow-up Program, and Mon-12 Site C Fish Stranding Monitoring Program, which are included in the FAHMFP as Appendices C and M, respectively. Data collection/monitoring for Mon-3 is scheduled to occur in future years. Monitoring of fish stranding sites is ongoing for Mon-12, the fish stranding monitoring program.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 07	· Accuracy of predictions about physical changes to habitat in the reservoir area during the development and operation of the construction headpond during the diversion stage of the Project.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. This requirement is addressed in Mon-3 Peace River Physical Habitat Monitoring Program, which is included as Appendix C of the FAHMFP. Data collection/monitoring for Mon-3 is scheduled to occur in future years. Progress with the EAC requirements related to Fish and Fish Habitat in 2019 helped to prepare for river diversion, which is scheduled to occur in late 2020. Monitoring of fish and fish habitat continued to document conditions prior to river diversion. As well, an updated Fish Passage Management was prepared and reviewed with Indigenous groups and fisheries agencies.
EAC 07	· Documenting, at an appropriate scale, spatial and temporal changes occurring in physical environmental conditions resulting from headpond hydrology, and in localized areas in relation to the effects of construction activities and mitigation procedures.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. This requirement is addressed in Mon-3 Peace River Physical Habitat Monitoring Program, which is included as Appendix C of the FAHMFP. Data collection/monitoring for Mon-3 is scheduled to occur in future years.
EAC 07	· Effectiveness of mitigation measures for management of predicted effects of sediment and fish stranding, and provide information required to adjust the mitigation program to reduce unforeseen adverse effects, as required.	Ongoing	In Compliance	These requirements are addressed in Mon-3 Peace River Physical Habitat Monitoring, and Mon-12 Site C Fish Stranding Monitoring, included as Appendices C and M of the FAHMFP. Data collection/monitoring for Mon-3 is scheduled to occur in future years. Monitoring of fish stranding sites is ongoing for Mon-12, the fish stranding monitoring program.
EAC 07	· Total dissolved gas.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. This requirement is addressed in Mon-11 Site C Total Dissolved Gas Monitoring Program, which is included as Appendix L of the FAHMFP. Data collection/monitoring for Mon-11 is scheduled to occur in future years.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 07	The Fisheries and Aquatic Habitat Monitoring and Follow-up Program must include monitoring during operations for a period of twenty years for at least the following: · Continued effectiveness of environmental protection measures undertaken during construction to mitigate effects on fish and fish habitat.	Ongoing	In Compliance	This requirement will be met through implementation of the Site C FAHMFP as described in FAHMFP Section 6 and the supporting monitoring plans, which are included as Appendices A - Q of the FAHMFP.
EAC 07	· Total dissolved gas.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. This requirement is addressed in Mon-11 Site C Total Dissolved Gas Monitoring Program, which is included as Appendix L of the FAHMFP. Data collection/monitoring for Mon-11 is scheduled to occur in future years.
EAC 07	· Meeting monitoring commitments as per the Fish Passage Management Plan.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. This requirement is addressed in: 1) Mon-13 Site C Fishway Effectiveness Monitoring; 2) Mon-14 Site C Trap and Haul Fish Release Location Monitoring Program; and 3) Mon-15 Site C Small Fish Species Translocation Monitoring Program. These monitoring plans are included as Appendices N – P of the FAHMFP. Data collection/monitoring for Mon-13, Mon-14, and Mon-15 are scheduled to occur in future years.
EAC 07	· Implement on-site monitoring of fish habitat areas in the side channel and mainstream margins, resulting from water fluctuations.	Ongoing	In Compliance	These requirements are addressed in Mon-3 Peace River Physical Habitat Monitoring, and Mon-12 Site C Fish Stranding Monitoring, included as Appendices C and M of the FAHMFP. Data collection/monitoring for Mon-3 is scheduled to occur in future years. Monitoring of fish stranding sites is ongoing for Mon-12, the fish stranding monitoring program.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 07	· Fish and fish habitat productivity, for reservoir, reservoir tributaries, and for downstream Peace River.	Ongoing	In Compliance	This requirement is addressed in the following programs (status in parenthesis): 1) Mon-1a Site C Reservoir Fish Community Monitoring Program (scheduled to occur in future years) 2) Mon-1b Site C Reservoir Tributaries Fish Community and Spawning Monitoring Program (Peace River Bull Trout Spawning Assessment is ongoing; Site C Reservoir Tributaries fish population indexing survey is ongoing) 3) Mon-2 Peace River Fish Community Monitoring Program (ongoing) 4) Mon-3 Peace River Physical Habitat Monitoring Program (scheduled to occur in future years) 5) Mon-4 Site C Reservoir Riparian Vegetation Monitoring Program (ongoing) 6) Mon-5 Peace River Riparian Vegetation Monitoring Program (ongoing) 7) Mon-6 Site C Reservoir Fish Food Organisms Monitoring Program (scheduled to occur in future years) 8) Mon-7 Peace River Fish Food Organisms Monitoring Program (ongoing) 9) Mon-8 Site C Reservoir Water and Sediment Quality Monitoring Program (general water and sediment quality monitoring, temperature monitoring, and turbidity monitoring are ongoing). 10) Mon-9 Peace River Water and Sediment Quality Monitoring Program (ongoing) The monitoring plans are included as Appendices A – J of the Fisheries and Aquatic Habitat Monitoring and Follow-up Program.
EAC 07	The Fisheries and Aquatic Habitat Monitoring and Follow-up Program must outline a procedure for evaluating future mitigation and compensation options after reservoir development and follow-up monitoring, as well as procedures for how	Complete	In Compliance	This requirement is addressed in Section 7.0 of the FAHMFP (Framework to Implement Future Compensation Actions).

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	compensation options that are technically and economically feasible will be implemented.			
EAC 07	The Fisheries and Aquatic Habitat Monitoring and Follow-up Program reporting must occur at least annually during construction and operations beginning 180 days following commencement of construction and operations phases, or in accordance with the applicable Fisheries Act authorization(s).	Ongoing	In Compliance	BC Hydro submits Annual Reports for the FAHMFP on March 1 each year, with the first report submitted March 1, 2017, and the most recent on March 1, 2019. These reports describe the status of each component of the FAHMFP.
EAC 07	The EAC Holder must provide this draft Fisheries and Aquatic Habitat Monitoring and Follow-up Program to FLNR, MOE and Aboriginal Groups for review within 90 days following the commencement of the construction and operations phases.	Complete	In Compliance	The draft FAHMFP was submitted to regulatory agencies and Indigenous groups on June 1, 2015.
EAC 07	The EAC Holder must file the final Fisheries and Aquatic Habitat Monitoring and Follow-up Program with EAO, FLN, MOE and Aboriginal Groups within 150 days following the commencement of the construction and operations phases.	Complete	In Compliance	The final FAHMFP was submitted to regulatory agencies and Indigenous groups on December 22, 2015.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 07	The EAC Holder must develop, implement and adhere to the final Fisheries and Aquatic Habitat Monitoring and Follow-up Program, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro intends to submit the 2019 Annual Report for the FAHMFP on March 1, 2020. The report will describe the status of each component of the FAHMFP. All of the monitoring programs that were scheduled to occur in 2019 were implemented. In support of meeting Fish and Fish Habitat conditions, a Fisheries and Aquatic Habitat Mitigation and Monitoring Technical Committee has been established with MOE, FLNR and Fisheries and Oceans Canada (DFO) staff to: - review the approach and outcome of mitigation and monitoring plans, provide technical recommendations to BC Hydro and regulatory agencies, and endorse relevant plans, - provide technical advice during plan implementation, - provide recommendations for adaptive management where needed, and - provide a mechanism to resolve areas of disagreement on technical or policy matters.
	VEGETATION AND ECOLOGICAL COMMUNITIES			
EAC 08	The EAC Holder must develop a Soil Management, Site Restoration, and Re-vegetation Plan to effectively manage disturbed soils, and to reclaim and revegetate disturbed construction areas to a safe and environmentally acceptable condition.	Complete	In Compliance	The Soil Management, Site Restoration, and Re-vegetation Plan is described in Section 4.12 of the CEMP for the Project. The final CEMP (Revision 1) was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. Revision 2 of the CEMP was issued in February 2016, Revision 4 in July 2016 (Revision 3 was not formally published). In addition to adding new CEMP requirements regarding soil management and site restoration, in July 2017 BC Hydro retained a new QEP responsible for site restoration and invasive weed management, based out of the Construction Office at site. Revision 6 of the CEMP was issued July 15, 2019.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 08	The Soil Management, Site Restoration, and Re-vegetation Plan must be developed by a QEP.	Complete	In Compliance	The Soil Management, Site Restoration, and Re-vegetation Plan is described in Section 4.12 of the Construction Environmental Management Plan (CEMP). Section 6.0 of the CEMP lists the QEPs who prepared the plan. In 2016, the Soil Management, Site Restoration, and Re-vegetation Plan was reviewed and revised by the Vegetation and Wildlife Technical Committee (VWTC) composed of members from the MOE, the MFLNRO and Canadian Wildlife Services. In July 2017 BC Hydro retained a new QEP responsible for site restoration and invasive weed management, based out of the Construction Office at site.
EAC 08	The Soil Management, Site Restoration, and Re-vegetation Plan must include at least the following: · Soil storage and handling measures that will maximize native soil use in restoration efforts, and manage incidental introduction and spread of invasive species.	Ongoing	In Compliance	Section 4.12 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. BC Hydro also developed the Invasive Weed Mitigation and Adaptive Management Plan (Rev 6 August 2017) and it has been issued to contractors to incorporate into their plans.
EAC 08	· Manage run-off so that it is directed around soil stockpiles and areas where excavation, spoil placement, and staging activities occur.	Ongoing	In Compliance	Section 4.3 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 08	· Progressive closure and reclamation of any temporary disturbance. Disturbed sites are replanted within one year with ground cover, shrubs, or trees that are regionally appropriate once erosion concerns have been addressed.	Ongoing	In Compliance	Section 4.12 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 08	· Identify native seed mixes used for site restoration and revegetation purposes.	Ongoing	In Compliance	Appendix H of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. Rev 5 of the CEMP has revised text to allow for the use of non-native seed mixes, together with native seed mixes, during initial site revegetation. The revisions are intended to improve effectiveness of erosion control measures at site while continuing to meet the project's long-term objective of achieving a sustainable native species ecosystem.
EAC 08	· Identify traditional use plants for revegetation purposes, in consultation with Aboriginal Groups.	Ongoing	In Compliance	Plant species of high traditional Indigenous value are being identified (per EAC 25) and will be included in the mix of species considered for re-vegetation activities conducted under the Soil Management, Site Restoration and Revegetation Plan (Appendix H of the CEMP). See EAC conditions 25 and 26 below.
EAC 08	The EAC Holder must provide this draft Plan to FLNR, MOE, Aboriginal Groups, Peace River Regional District, City of Fort St. John and the District of Hudson's Hope for review a minimum of 90 days prior to the commencement of construction.	Complete	In Compliance	The Soil Management Site Restoration and Re-vegetation Plan is described in Section 4.12 of the CEMP for the Project. The Draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on June 5, 2015. Revision 2 of the CEMP was issued in February 2016, Revision 4 in July 2016 (Revision 3 was not formally published), Revision 5.1 in May 2019, Revision 6 in July 2019 and Revision 6.1 in December 2019.
EAC 08	The EAC Holder must file the final Soil Management, Site Restoration, and Re-vegetation Plan with EAO, FLNR, MOE, Aboriginal Groups, Peace River Regional District, City of Fort St. John and the District of Hudson's Hope a minimum of 30 days prior to the commencement of construction.	Complete	In Compliance	The final (Revision 1) of the CEMP was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. Revision 2 of the CEMP was issued in February 2016 and Revision 4 in July 2016 (Revision 3 was not formally published). Revision 5 was issued on February 19, 2019, Revision 5.1 on April 19, 2019 and Revision 6 on July 15, 2019.
EAC 08	The EAC Holder must develop, implement and adhere to the final Soil Management, Site Restoration, and Re- vegetation Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Appendix H of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 09	The EAC Holder must develop a Vegetation and Invasive Plant Management Plan to protect ecosystems, plant habitats, plant communities, and vegetation with components applicable to the construction phase.	Ongoing	In Compliance	Section 4.15 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 09	The Vegetation and Invasive Plant Management Plan must be developed by a QEP.	Complete	In Compliance	The Vegetation and Invasive Plant Management Plan is described in Section 4.15 of the Construction Environmental Management Plan (CEMP). Section 6.0 of the CEMP lists the QPs who prepared the plan. In addition to improving the CEMP requirements regarding soil management and site restoration, in July 2017 BC Hydro retained a new staff QEP person responsible for site restoration and invasive weed management, based out of the Construction Office at site.
EAC 09	The Vegetation and Invasive Plant Management Plan must include at least the following: **Invasive Species** · Surveys of existing invasive species populations prior to construction.	Complete	In Compliance	Surveys of existing invasive species populations are required as part of all EPPs, and therefore before all works that may involve disturbing soil or vegetation. BC Hydro has retained a contractor to complete invasive species management across all areas of the project. This contractor started in 2017 and completed the first full season during construction in 2018.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 09	· Invasive plant control measures to manage established invasive species populations and to prevent invasive species establishment.	Complete	In Compliance	Section 4.15 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. The Invasive Weed Mitigation and Adaptive Management Plan (IWMAMP) includes herbicide based invasive plant management in the dam site area, and the expansion of the vehicle cleanliness program, including the use of vehicle inspection forms. Rev 6 of the IWMAMP was completed and has been rolled out to some contractors. To date, contractors have completed the following: invasive plant removal through hand pulling, on-going inventories of invasive plant locations, extensive hydroseeding of exposed slopes across the Project area, regular vehicle inspections and cleaning through various methods to ensure vehicles are clean and free of dirt and invasive plants when transitioning between sites and into the Project area. BC Hydro implemented an Invasive Species Management Contractor that completed a control program across the dam site in September and October 2017. That contractor has continued into 2019 across all areas of the project and this will continue for the remainder of the project lifespan. The Main Civil Works contractor has retained an invasive plant species specialist to advise on invasive plant species management. BC Hydro installed two temporary rinse stations at Gate A and Gate B in July 2017. The temporary wash stations were decommissioned at the onset of winter conditions in 2017 and procurement was completed for a permanent wash station. Construction of the permanent rinse station was completed by Oct 2019 and operations will begin in 2020.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 09	**Rare Plants and Sensitive Ecosystems** · The EAC Holder must expand its modelling, including completing field work, to improve identification of rare and sensitive plant communities and aid in delineation of habitats that may require extra care, 90 days prior to any Project activities that may affect these rare or sensitive plant communities	Complete	In Compliance	Field surveys in support of expanding modelling to improve the identification of rare and sensitive plant communities were completed in 2015. The results of these field surveys are described in the 2015 Annual Report for the VWMMP, provided to agencies on January 22, 2016.
EAC 09	· The EAC Holder must, with the use of a QEP, complete an inventory in areas not already surveyed and use rare plant location information as inputs to final design of access roads and transmission lines.	Ongoing	In Compliance	For 2019, field surveys for rare plants focused on planned access roads on the south side of the Peace River, and on the remaining segments of Highway 29 realignment corridors on the north side of the River. The complete 2019 program report will be provided in the 2019 Annual Report for the VWMMP, which will be provided to agencies by 31 March 2020.
EAC 09	These pre- construction surveys must target rare plants as defined in Section 13.2.2 of the EIS —including vascular plants, mosses, and lichens.	Ongoing	In Compliance	Pre-construction surveys are targeting rare plants as defined in Section 13.2.2 of the EIS. The complete 2018 program report will be provided in the 2019 Annual Report for the VWMMP, which will be provided to agencies by 31 March 2020.
EAC 09	· The EAC Holder must create and maintain a spatial database of known rare plant occurrences in the vicinity of Project components that must be searched to avoid effects to rare plants during construction activities.	Ongoing	In Compliance	A spatial database of rare plant occurrences in the vicinity of Project Components is captured on the Environmental Features Map. The Environmental Features Map was updated with the 2019 rare plant data on 22 July 2019 and provided to contractors for use in planning.
EAC 09	The database must be updated as new information becomes available and any findings of new rare plant species occurrences must be submitted to Environment Canada and MOE using provincial data collection standards.	Ongoing	In Compliance	A spatial database of rare plant occurrences in the vicinity of Project Components is captured on the Environmental Features Map. The Environmental Features Map was updated with the 2019 rare plant data on 22 July 2019 and provided to contractors for use in planning. The 2019 rare plant data were submitted to the Program Botanist at the BC Conservation Data Center, MOE on 11 January, 2020.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 09	· The EAC Holder must implement construction methods to reduce the impact to rare plants, maximize use of existing access corridors, and construct transmission towers and temporary roads away from wetlands and known rare plant occurrences.	Ongoing	In Compliance	Section 4.17 of the CEMP requires avoiding impacts to Important Wildlife Areas, such as wetlands, to the degree feasible. Except within the dam site area, on designated access roads and during clearing, construction activities shall be prohibited within 15 m of the Ordinary High Water Mark of streams or wetlands, unless the activity was described in the EIS and is accepted by BC Hydro. Rare plant occurrences are identified through focused surveys, and impacts to rare plant occurrences are avoided to the degree feasible, as described in Sections 4.15 and 4.18 of the CEMP. Impacted occurrences of rare plants are mitigated through implementation of the Experimental Rare Plant Translocation Program.
EAC 09	· Protect known occurrences of Tufa seeps, wetlands and rare plants located adjacent to construction areas. Install signage and flagging where necessary, as determined by the QEP, to indicate the boundaries of the exclusion area.	Ongoing	In Compliance	Tufa seeps are present on the south bank of the eastern reservoir, where clearing occurred in 2019. Mitigation to minimize impacts on the Tufa Seep consisted of no ground equipment within the feature, and trees were directionally felled away from the Tufa Seep to the degree feasible. A Tufa Seep will be partially impacted due to the construction of the Hudson's Hope shoreline protection berm, which is planned to occur 2020-2022. Impacts will be reduced through design and fencing is planned to protect areas of the tufa seep that can be avoided.
EAC 09	· The EAC Holder will engage the services of a Rare Plant Botanist during construction to design and implement an experimental rare plant translocation program in consultation with MOE using the BC MOE's Guidelines for Translocation of Plant Species at Risk in BC (Maslovat, 2009).	Ongoing	In Compliance	BC Hydro engaged the services of rare plant biologists to design the rare plant translocation program. Development of the program began in 2016 following the steps outlined in the VWMMP (June 5, 2015) and in "Guidelines for Translocation of Plant Species at Risk in British Columbia", by C. Maslovat, C. 2009. The 2018 Annual Report for the VWMMP, which will be submitted to regulatory agencies and Indigenous groups by March 31, 2020, outlines the status of the program as of December 2019.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 09	The EAC Holder must provide this draft Vegetation and Invasive Plant Management Plan to Environment Canada, FLNR, MOE, and Aboriginal Groups for review a minimum of 90 days prior to construction and operation phases.	Complete	In Compliance	The Vegetation and Invasive Plant Management Plan is described in Section 8.1 of the VWMMP. The draft and first revision of the VWMMP was submitted to regulatory agencies and Indigenous groups on October 17, 2014, and April 7, 2015, respectively.
EAC 09	The EAC Holder must file the final Vegetation and Invasive Plant Management Plan with EAO, Environment Canada, FLNR, MOE, and Aboriginal Groups, a minimum of 30 days prior to construction and operation phases.	Complete	In Compliance	The final Vegetation and Invasive Plant Management Plan was submitted to regulatory agencies and Indigenous groups on June 5, 2015.
EAC 09	The EAC Holder must develop, implement and adhere to the final Vegetation and Invasive Plant Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Section 4.15 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. The Invasive Weed Mitigation and Management Plan (IWMAMP) includes herbicide based invasive plant management in the dam site area, and the expansion of the vehicle cleanliness program, including the use of vehicle and equipment inspection forms. Rev 6 of the IWMAMP was completed and provided to contractors for the project. To date, contractors have completed the following: invasive plant removal through hand pulling, on-going inventories of invasive plant locations, extensive hydroseeding of exposed slopes across the Project area, regular vehicle inspections and cleaning through various methods to ensure vehicles are clean and free of dirt and invasive plants when transitioning between sites and into the Project area. BC Hydro implemented an Invasive Species Management Contractor that completed a control program across the dam site in September and October 2017 and this has continued through 2019 and is scheduled to

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				continue until the end of the project. The Main Civil Works contractor has retained an invasive plant species specialist to advise on invasive plant species management. BC Hydro installed two temporary wash stations at Gate A and Gate B in July 2017. The temporary wash stations were decommissioned at the onset of winter conditions in 2017 and procurement was completed for a permanent wash station. Construction of the permanent rinse station was completed by Oct 2019 and operations will begin in 2020.
EAC 10	The EAC Holder must fund or undertake directly with the use of a Rare Plant Botanist the following, during construction: · Targeted surveys in the RAA (as defined in the amended EIS) to identify occurrences of the 18 directly affected rare plant species (as defined in the amended EIS), and rare plant species identified by the MOEs Conservation Framework requiring additional inventories.	Ongoing	In Compliance	The requirement for targeted surveys in the Regional Assessment Area (RAA) is addressed in Section 7.4.7 Part B Supplemental Regional Rare Plant Surveys (see also S. 8.2.2) of the VWMMP. Targeted surveys in the RAA began in 2016 and were completed in 2017. The final report of the targeted rare plant surveys in the RAA was included in the 2017 Annual Report for the VWMMP, which was submitted to regulatory agencies and Indigenous groups in March, 2018.
EAC 10	· A study focused on clarifying the taxonomy of Ochroleucus bladderwort (Utricularia ochroleuca), including field, herbaria, and genetic work in consultation with FLNR and the MOE (BC Conservation Data Centre).	Complete	In Compliance	On March 22, 2016, BC Hydro submitted a letter to the Conservation Data Centre indicating that the taxonomy of Ochroleucus bladderwort had been completed by the BC MOE, and therefore no further work was required by BC Hydro. On March 24, 2016, the Conservation Data Centre confirmed the same understanding. Based on this information no further work is planned.
EAC 10	The EAC Holder must provide FLNR and MOE (BC Conservation Data Centre) with the findings and analysis of results from the surveys and taxonomic study.	Complete	In Compliance	Results of the targeted surveys are provided to FLNR and MOE in the 2017 Annual Report for the VWMMP. The 2017 rare plant data were submitted to the Program Botanist at the BC Conservation Data Center, MOE on November 2, 2017 and February 6, 2018. As noted above, no further work is required on taxonomy of Ochroleucus bladderwort.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 11	The EAC Holder must compensate for the loss of rare and sensitive habitats and protect occurrences of rare plants by developing, or funding the development and implementation of a compensation program, during construction, that includes:	Ongoing	In Compliance	BC Hydro revised the experimental rare plant translocation program in 2019 due to changes in the conservation status of a number of plants involved. This program will enhance habitat by increasing the density of rare plans in suitable habitat, using propagules that were salvaged from all areas that will be impacted by the Project. Work to salvage rare plants under this program occurred in 2019, along with propagation trials and translocation. The complete 2019 program report will be provided in the 2019 Annual Report for the VWMMP, which will be provided to agencies by 31 March 2020.
EAC 11	· Assistance (financial or in-kind) to the managing organization of suitable habitat enhancement projects in the RAA (RAA as defined in the amended EIS).	Ongoing	In Compliance	Habitat enhancement activities to compensate for the loss of rare and sensitive habitats and for protecting occurrences of rare plants are being conducted through Ducks Unlimited for wetland compensation activities and Ecologic Consultants through the Saulteau-EBA Environmental Services Joint Venture for the Rare Plant Translocation Program.
EAC 11	· Direct purchase of lands in the RAA and manage these lands and suitable existing properties owned by the EAC Holder to enhance or retain rare plant values where opportunities exist.	Ongoing	In Compliance	In 2014 BC Hydro purchased the Marl Fen property located outside Hudson's Hope. This property supports several rare plant species. This property is being managed to maintain rare plants along with other wildlife and vegetation values. Results of surveys documenting species that are using the property are provided in the 2015 Annual Reports for the VWWMP.
EAC 11	The EAC Holder must engage with FLNR, MOE and Aboriginal Groups with regard to the development of the compensation program.	Ongoing	In Compliance	The compensation plan is described in the VWMMP, Section 7.4.4 Part D. The draft and first revision of the VWMMP was submitted to regulatory agencies and Indigenous groups on October 17, 2014, and April 7, 2015, respectively. The final VWMMP was submitted to regulatory agencies and Indigenous groups on June 5, 2015. Consultation is ongoing. An Environmental Forum was held in Fort St. John on November 13, 2018 to discuss ongoing aspects of the Rare Plant Translocation Program and the Wetland Compensation Program with interested Indigenous groups. Indigenous groups have also been asked for input regarding potential wetland compensation opportunities.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 12	The EAC Holder must develop a Wetland Mitigation and Compensation Plan.	Ongoing	In Compliance	The Wetland Mitigation and Compensation Plan is described in Section 7.3 (see also Section 8.4) of the VWMMP. Details of the Wetland Mitigation and Compensation Plan continue to be developed as wetland enhancement projects are identified and implemented in the Peace Region.
EAC 12	The Wetland Mitigation and Compensation Plan must include an assessment of wetland function lost as a result of the Project that is important to migratory birds and species at risk (wildlife and plants).	Ongoing	In Compliance	Drafts of the assessment of wetland function were provided in the 2015 and 2016 Annual Report for the VWMMP. A revised assessment of wetland function was provided in the 2018 Annual Report for the VWMMP.
EAC 12	The Wetland Mitigation and Compensation Plan must be developed by a QEP with experience in wetland enhancement, maintenance and development.	Ongoing	In Compliance	The Wetland Mitigation and Compensation Plan is described in Section 7.3 (see also Section 8.4) of the VWMMP. Section 2.3 of the Plan lists the QEPs who prepared the plan.
EAC 12	The Wetland Mitigation and Compensation Plan must include at least the following: · Information on location, size and type of wetlands affected by the Project;	Ongoing	In Compliance	Data on wetland location, size and type gathered during baseline surveys are summarized in Section 7.3.3 of the VWMMP. To gather additional site specific data on wetlands within the Project footprint, BC Hydro, in cooperation with Ducks Unlimited, has developed a wetland monitoring plan as a component of the assessment of wetland function. Wetland monitoring has been occurring in various aspects of the Local Assessment Area (as defined in the Project's Environmental Impact Statement) prior to and during construction, but this monitoring plan will provide additional structure to identify and fill key information gaps needed to better understand Project impacts to wetlands and to help inform the determination of appropriate compensation. The wetland monitoring plan was implemented in Spring of 2018. The complete 2019 program report will be provided in the 2019 Annual Report for the VWMMP, which will be provided to agencies by 31 March 2020.
EAC 12	· If roads cannot avoid wetlands, culverts will be installed under access roads to maintain hydrological balance, and	Ongoing	In Compliance	Culverts are installed under access roads where necessary to maintain hydrological balance, and sedimentation barriers installed as required, as described in Section 4.4 of the CEMP.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	sedimentation barriers will be installed;			
EAC 12	· Stormwater management will be designed to control runoff and direct it away from work areas where excavation, spoil placement, and staging activities occur.	Ongoing	In Compliance	Stormwater across the site is managed by contractors under the Erosion and Sediment Control Program. Management includes installation of sedimentation ponds and interception ditches. Interception ditches capture and divert stormwater away from construction areas into the sedimentation ponds. Water from the sedimentation ponds is discharged into surrounding environment.
EAC 12	· Develop, with the assistance of a hydrologist, site-specific measures prior to construction to reduce changes to the existing hydrologic balance and wetland function during construction of the Jackfish Lake Road and Project access roads and transmission line.	Ongoing	In Compliance	BC Hydro engaged a forestry consultant to design access roads and clearing prescriptions along the transmission line. A hydrologist on staff with the forestry consultant reviewed the design to ensure that the hydrology of wetlands along the transmission line is maintained. Most access road construction works were completed in 2019. The design and construction of any remaining roads required for stringing or decommissioning of the 138 kV lines will continue to involve input from the consultant hydrologist to ensure compliance with this condition.
EAC 12	· All activities that involve potentially harmful or toxic substances, such as oil, fuel, antifreeze, and concrete, must follow approved work practices and consider the provincial BMP guidebook Develop with Care (BC Ministry of Environment 2012 or as amended from time to time).	Ongoing	In Compliance	Section 4.13 of the CEMP requires contractors to follow approved work practices and BMPs with regard to potentially harmful or toxic substances. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 12	· A defined mitigation hierarchy that prioritizes mitigation actions to be undertaken, including but not limited to: - Avoid direct effects where feasible; - Minimize direct effects where avoidance is not feasible; - Maintain or improve hydrology where avoidance is not feasible;	Ongoing	In Compliance	The CEMP describes how impacts to wetlands are avoided or minimized to the degree feasible, including through the maintenance or improvement of hydrology. In 2016 BC Hydro and Ducks Unlimited initiated the process of identifying wetland mitigation opportunities that could become components of the wetland mitigation plan. To date, BC Hydro has secured 2 properties for wetland compensation and is in

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	- Replace like for like where wetlands will be lost, in terms of functions and compensation in terms of area; - Improve the function of existing wetland habitats; and - Create new wetland habitat			the process of identifying compensation opportunities on Crown land to contribute towards fulfilling the plan requirements while also facilitating the current use of lands and resources by Indigenous groups. In 2019, BC Hydro and Ducks Unlimited constructed about 50 ha of wetland habitat on private land at Golata Canyon Ranch. The construction guidelines for Area A, a new wetland area to be completed as part of the dam site reclamation area, were submitted with the June 5, 2015 VWMMP, and have been incorporated as requirements in the Main Civil Works contract covering this area. Creation of this new wetland is planned to occur toward the end of the 8 year construction period, and will contribute toward wetland compensation requirements.
EAC 12	The EAC Holder must monitor construction and operation activities that could cause changes in wetland functions.	Ongoing	In Compliance	BC Hydro requires its contractors to describe in their EPPs construction activities that could cause changes in wetland functions, including how those construction activities will be monitored and at what frequency. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 12	The EAC Holder must provide this draft Wetland Mitigation and Compensation Plan to Environment Canada, FLNR, MOE, Aboriginal Groups, Peace River Regional District and District of Hudson's Hope for review a minimum of 90 days prior to any activity affecting the wetlands.	Complete	In Compliance	The draft and first revision of the VWMMP was submitted to regulatory agencies and Indigenous groups on October 17, 2014, and April 7, 2015, respectively.
EAC 12	The EAC Holder must file the final Wetland Mitigation and Compensation Plan with EAO, Environment Canada, FLNR, MOE, Peace River Regional District, District of Hudson's Hope and Aboriginal Groups, a minimum of 30 days prior to any activity affecting the wetlands.	Complete	In Compliance	The final VWMMP was submitted to regulatory agencies and Indigenous groups on June 5, 2015.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 12	The EAC Holder must develop, implement and adhere to the final Wetland Mitigation and Compensation Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro has partnered with Ducks Unlimited and procured property to start fulfilling the Plan's wetland compensation requirements, with wetland compensation activities ongoing. In 2019, BC Hydro and Ducks Unlimited constructed about 50 ha of wetland habitat on private land at Golata Canyon Ranch. In addition to work on private lands, BC Hydro and Ducks Unlimited are in the process of identifying wetland compensation opportunities on Crown land to contribute towards fulfilling wetland compensation requirements while also facilitating the current use of lands and resources by Indigenous groups.
EAC 13	The EAC Holder must develop the Vegetation Clearing and Debris Management Plan.	Complete	In Compliance	Revision 3 of the VCDMP was submitted to regulatory agencies and Indigenous groups on July 29, 2019.
EAC 13	The Vegetation Clearing and Debris Management Plan must be developed by a QEP.	Complete	In Compliance	Section 11.0 of the VCDMP lists the QPs who prepared the plan.
EAC 13	The Vegetation Clearing and Debris Management Plan must ensure that clearing would be conducted in the approved Project Activity Zone only,	Ongoing	In Compliance	BC Hydro prepares the clearing plans for all work on the Site C Project. As part of this plan preparation, BC Hydro ensures that clearing boundaries are within the Project activity Zone.
EAC 13	And construction would be monitored by the QEP to prevent any unnecessary clearing.	Ongoing	In Compliance	BC Hydro requires its contactors to prepare EPPs that include an explanation of environmental monitoring effort and that this monitoring occur by a QEP or under the supervision of a QEP.
EAC 13	Specific to the transmission line component of the Project: · The EAC Holder must not grub the right of way with the exception of transmission tower foundation pads, temporary work spaces and access roads.	Ongoing	In Compliance	BC Hydro requires its transmission line clearing and construction contractors to describe in their EPPs construction activities that comply with this condition's requirement. These EPPs are reviewed and accepted by BC Hydro and BC Hydro inspects the contractors for compliance with their EPPs.
EAC 13	· Where conductor clearance allows, the EAC Holder must not remove riparian vegetation along watercourses or waterbodies crossed by the transmission	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition. A special prescription is in place for transmission line clearing that requires retention of low growing willow species that are not expected to grow into the overhead conductor's limits of

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	corridor.			approach.
EAC 13	To reduce erosion along steep or unstable slopes, the EAC Holder must apply best management practices for reservoir clearing along riparian areas and watercourses.	Ongoing	In Compliance	The Riparian Vegetation Management Area (RVMA) buffer is established 15m back from the Ordinary High Water Mark (OHWM). Terrain Stability Field Assessments (TSFAs) are done by a terrain specialist to ensure any clearing on or near Terrain Class V (high likelihood of landslide initiation following timber harvesting or road construction) areas will not increase slope instability. Areas of potential instability will be removed until a TSFA can be completed. Steep areas will be hand felled (fall and leave) where safe to do so. Areas deemed unsafe or unstable will be left standing until inundation occurs. Boundary limits for clearing activities are flagged (orange ribbon) in the field.
EAC 13	Practices must include but not limited to the following: · Retention of all trees on steep, unstable slopes that would be highly susceptible to landslides if the vegetation was removed.	Ongoing	In Compliance	Clearing plans for the dam site area Moberly River drainage, eastern reservoir and middle reservoir have had Terrain Stability Field Assessments (TSFA) completed. All layouts have incorporated the recommendations of a geotechnical specialist and a spreadsheet recording recommendations and how they have been addressed in the field (with associated map references) has been developed by our forestry consultant. BC Hydro has also been provided the clearing plans and TSFA reports to review as the owner's geotechnical specialists.
EAC 13	· Retention of non-merchantable trees and vegetation in riparian areas within a 15 m buffer from the Ordinary High Water Mark.	Ongoing	In Compliance	Clearing prescriptions include descriptions on how Riparian Vegetation Management Area clearing is to be conducted and the level of Riparian Vegetation Management Area (RVMA) retention within each treatment unit (TU). The RVMA buffer is flagged in the field, 15m back from the Ordinary High Water Mark (OHWM).

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 13	- Merchantable trees and vegetation that may protrude above 455 m elevation may still be removed using clearing practices to maintain a 15 m machine-free zone from the OHWM - Merchantable trees and vegetation that may protrude above 455 m elevation may still be removed using clearing practices to maintain a 15 m machine-free zone from the OHWM, except where worker safety prohibits manual tree falling and vegetation removal methods and as addressed in a site-specific prescription prepared and endorsed by a QEP. The rationale for the safety exemption must be documented in the prescription.	Ongoing	In Compliance	This condition was amended in February 2019, allowing for the selective use of mechanical clearing in riparian zones where safety prohibits manual falling. BC Hydro audited compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 13	The EAC Holder must provide this draft Vegetation Clearing and Debris Management Plan to Environment Canada, FLNR, MOE, Aboriginal Groups, Peace River Regional District and District of Hudson's Hope for review a minimum of 90 days prior to commencement of construction.	Complete	In Compliance	The draft VCDMP was submitted to regulatory agencies, governments, and Indigenous groups October 17, 2014.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 13	The EAC Holder must file the final Vegetation Clearing and Debris Management Plan with EAO, Environment Canada, FLNR, MOE, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups, a minimum of 30 days prior to commencement of construction.	Complete	In Compliance	The final VCDMP was submitted to regulatory agencies, governments, and Indigenous groups on June 5, 2015, respectively. The VCDMP was updated in July 2019 to reflect the following changes: -Clarified that clearing contractors may be granted the merchantable timber as part of their clearing contract - Indicated that work within riparian areas may be requirement for the management of natural woody debris -Indicated that islands may be accessed by fording machinery/equipment, in addition to other methods - Expanded the description of naturally occurring woody debris and the need for its removal prior to river diversion
EAC 13	The EAC Holder must develop, implement and adhere to the final Vegetation Clearing and Debris Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The VCDMP is being implemented as planned.
EAC 14	The EAC Holder must develop a Vegetation and Ecological Communities Monitoring and Follow-up Program for the construction phase and first 10 years of the operations phase.	Complete	In Compliance	This requirement is addressed in Section 7.4.4, Part C of the VWMMP.
EAC 14	The Vegetation and Ecological Communities Monitoring and Follow-up Program must be developed by a QEP.	Complete	In Compliance	The Vegetation and Ecological Communities Monitoring and Follow-up Program is described in Section 7.4.4, Part C of the VWMMP. Section 2.3 of the VWMMP lists the QPs who prepared the plan.
EAC 14	The Vegetation and Ecological Communities Monitoring and Follow-up Program must include at least the following: · Definition of the study design for the rare plant translocation program (see condition 9).	Ongoing	In Compliance	Development of the Rare Plant Translocation program began in 2016. The 2019 Annual Report for the VWMMP, to be submitted by March 31, 2020, provides an update on the status of the translocation program.
EAC 14	· Plan for following-up monitoring of any translocation sites to assess the survival and health of translocated rare plant species, under the supervision of a Rare Plant	Ongoing	In Compliance	Development of the Rare Plant Translocation program began in 2016. The 2019 Annual Report for the VWMMP, to be submitted by March 31, 2020, provides an update on the status of the translocation program.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	Botanist.			
EAC 14	· Measurement criteria, including vegetation growth, persistence of rare plants and establishment / spread of invasive plant species, and associated monitoring to document the effectiveness of habitat enhancement and possible compensation programs.	Ongoing	In Compliance	The rare plant translocation monitoring program will document a suite of measurable parameters designed to evaluate the efficacy of translocation methods and management in relation to the stated objectives of the program. The monitoring program is in development and will not be required until after planting of propagated rare translocated plants. In 2019, the rare plant translocation program continued to collect propagules (seeds, whole plants) and identify suitable planting sites, while also conducting translocation.
EAC 14	The Vegetation and Ecological Communities Monitoring and Follow-up Program reporting must occur annually during construction and the first 10 years of operations, beginning 180 days following commencement of construction.	Ongoing	In Compliance	BC Hydro provided the 2015 Annual Report on the implementation of the VWMMP on January 22, 2016, and has submitted subsequent annual reports before 31 March of each year. The 2019 Annual Report will be submitted by March 31, 2020.
EAC 14	The EAC Holder must provide this draft Vegetation and Ecological Communities Monitoring and Follow-up Program to Environment Canada, FLNR, MOE, Peace River Regional District, City of Fort St. John and Aboriginal Groups for review within 90 days after the commencement of construction.	Complete	In Compliance	This requirement is addressed in Section 7.4.4, Part C of the VWMMP. The draft and first revision of the VWMMP was submitted to regulatory agencies and Indigenous groups on October 17, 2014, and April 7, 2015, respectively. The final VWMMP was submitted to the same recipients on June 5, 2015. The VCDMP was updated in July 2019 as noted above.
EAC 14	The EAC Holder must file the final Vegetation and Ecological Communities Monitoring and Follow-up Program with EAO, Environment Canada, FLNR, MOE, Peace River Regional District, City of Fort St. John, and Aboriginal Groups, within 150 days after commencement of construction.	Complete	In Compliance	The final VWMMP was submitted to regulatory agencies and Indigenous groups on June 5, 2015. The VCDMP was updated in July 2019 and provided to regulatory agencies and Indigenous groups.
EAC 14	The EAC Holder must develop, implement and adhere to the final Vegetation and Ecological Communities Monitoring and Follow-up Program, and any amendments,	Ongoing	In Compliance	BC Hydro is adhering to the Vegetation and Ecological Communities Monitoring and Follow-up Program, as shown by activities described in the Annual Report for the VWMMP. The 2019 Annual Report for the VWMMP will be submitted by

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	to the satisfaction of EAO.			March 31, 2020.
	WILDLIFE RESOURCES			
EAC 15	The EAC Holder must develop a Wildlife Management Plan.	Complete	In Compliance	The Wildlife Management Plan is described in Sections 3.0 and 4.17 of the CEMP and Section 8.6.2 of the VWMMP. The final VWMMP was developed and submitted to regulatory agencies, governments and Indigenous groups on June 5, 2015.
EAC 15	The Wildlife Management Plan must be developed by a QEP.	Complete	In Compliance	The Wildlife Management Plan is described in Sections 3.0 and 4.17 of the CEMP and Section 8.6.2 of the VWMMP. Section 6.0 of the CEMP and Section 2.3 of the VWMMP lists the QEPs who prepared the plans.
EAC 15	The Wildlife Management Plan must include at least the following: · Field work, conducted by a QEP, to verify the modelled results for surveyed species at risk and determine, with specificity and by ecosystem, the habitat lost or fragmented for those species.	Complete	In Compliance	Results of the field work completed to verify the modelled results for surveyed species at risk was included in the 2015 Annual Report for the VWMMP.
EAC 15	The EAC Holder must use these resulting data to inform final Project design and to develop additional mitigation measures, as needed, as part of the Wildlife Management Plan, in consultation with Environment Canada and FLNR.	Complete	In Compliance	Resulting data were used to update the models and the ranking of habitats. BC Hydro is using this information, along with additional baseline data collected since that as part of vegetation and wildlife monitoring plans, to assess habitat losses and plan for mitigation efforts.
EAC 15	· Measures to avoid, if feasible, constructing in sensitive wildlife habitats. If avoiding sensitive wildlife habitats is not feasible, condition 16 applies.	Ongoing	In Compliance	BC Hydro is avoiding, where feasible, construction in sensitive wildlife habitats. For example, BC Hydro relocated work zones within the Portage Mountain quarry to avoid known bat hibernacula. BC Hydro also implemented buffer zones and blasting timing windows to avoid disturbing hibernating bats adjacent to the quarry. Required general measures for mitigating impacts to sensitive wildlife habitat features are described in Section 4.17 of the CEMP.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 15	· If sensitive habitats, such as wetlands, are located immediately adjacent to any work site, buffer zones must be established by a QEP to avoid direct disturbance to these sites.	Ongoing	In Compliance	Section 4.18 of the CEMP requires contractors to identify Restricted Activity and Work Avoidance Zones and the implementation of buffer zones. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. Environmental audits to evaluate compliance with the CEMP and EAC and Federal Decision Statement Project approval conditions are also conducted by the Independent Environmental Monitor (IEM).
EAC 15	· Protocol for the application of construction methods, equipment, material and timing of activities to mitigate adverse effects to wildlife and wildlife habitat.	Ongoing	In Compliance	Section 4.17 of the CEMP describes how requirements for EPPs in minimizing disturbance to wildlife during the construction phase, including conducting works within the least risk timing windows. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. Environmental audits to evaluate compliance with the CEMP and EAC and Federal Decision Statement Project approval conditions are also conducted by the Independent Environmental Monitor (IEM).
EAC 15	· Protocol to ensure that lighting is focused on work sites and away from surrounding areas to manage light pollution and disturbance to wildlife.	Ongoing	In Compliance	The requirement to focus lighting into work areas is included in Section 4.17 of the CEMP. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. Lighting was focused on the work site in all construction locations.
EAC 15	If lighting cannot be directed away from surrounding areas, the EAC Holder must ensure additional mitigation measures are implemented to reduce light pollution, including light shielding.	Ongoing	In Compliance	The requirement to focus lighting into work areas is included in Section 4.17 of the CEMP. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs. Lighting was focused on the work site in all construction locations.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 15	· A mandatory environmental training program for all workers so that they are informed that hunting in the vicinity of any work site/Project housing site is strictly prohibited for all workers.	Complete	In Compliance	The requirement for all workers to receive environmental training is included in Section 3.0 of the CEMP V4. Section 4.17 of the CEMP V4 clarifies some of the activities that are prohibited and the training that is required: "Project workers shall be prohibited from hunting while on construction sites, Project built roads or worker housing sites, Cleaning game at construction sites Project built roads or worker housing sites. All workers are required to attend both a BC Hydro orientation and a contractor specific orientation(s) prior to starting work on-site. A component of these training sessions is environmental training for workers. Completion of these sessions required prior to the issuance of site access cards."
EAC 15	The EAC Holder must ensure that all workers are familiar with the Wildlife Management Plan.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation EPPs.
EAC 15	The EAC Holder must submit this draft Wildlife Management Plan to Environment Canada, FLNR, MOE and Aboriginal Groups for review a minimum of 90 days prior to the commencement of construction.	Complete	In Compliance	The Wildlife Management Plan is described in Section 4.17 of the CEMP and Section 8.6.2 of the VWMMP. The Draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014. The draft and first revision of the VWMMP was submitted to regulatory agencies and Indigenous groups on October 17, 2014, and April 7, 2015, respectively.
EAC 15	The EAC Holder must file the final Wildlife Management Plan with EAO, Environment Canada, FLN, MOE and Aboriginal Groups, a minimum of 30 days prior to commencement of construction.	Complete	In Compliance	The final (Revision 1) of the CEMP was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. The final VWMMP was submitted to regulatory agencies and Indigenous groups on June 5, 2015.
EAC 15	The EAC Holder must develop, implement and adhere to the final Wildlife Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				implementation EPPs.
EAC 16	If loss of sensitive wildlife habitat or important wildlife areas cannot be avoided through Project design or otherwise mitigated, the EAC Holder must implement the following measures, which must be described in the Vegetation and Wildlife Mitigation and Monitoring Plan.	Ongoing	In Compliance	All required measures of EAC condition 16 are identified in the VWMMP. The final VWMMP was submitted to regulatory agencies and Indigenous groups on June 5, 2015.
EAC 16	The Vegetation and Wildlife Mitigation and Monitoring Plan must include the following compensation measures: · Compensation options for wetlands must include fish-free areas to manage the effects of fish predation on invertebrate and amphibian eggs and larvae and young birds.	Ongoing	In Compliance	Section 8.7.2 of the VWMMP sets out the specifications for the new wetland area planned for the dam site (Area A), which is to include fish-free areas. Additional compensation options for wetlands, still in development, will also include fish-free areas. In 2019, BC Hydro and Ducks Unlimited constructed about 50 ha of fish-free wetland area at Golata Canyon Ranch.
EAC 16	· Mitigation for the loss of snake hibernacula, artificial dens must be included during habitat compensation.	Ongoing	In Compliance	BC Hydro has engaged a contractor to develop and implement construction and monitoring of artificial snake hibernacula. The mitigation and monitoring plan for snakes has been reviewed by the VWTC and was deemed complete in 2018. Installation of snake hibernacula was not conducted in 2019 but is planned for 2020.
EAC 16	· Management of EAC Holder-owned lands adjacent to the Peace River suitable as breeding habitat for Northern Harrier and Short-eared Owl.	Ongoing	In Compliance	BC Hydro continues to manage three BC Hydro owned properties identified for retention and wildlife management. All three properties provide suitable habitat for non-wetland birds, including the northern harrier and short-eared owl. Surveys in 2016 documented short-eared owl on one property and northern harrier on all three properties.
EAC 16	· Establishment of nest boxes for cavity-nesting waterfowl developed as part of wetland mitigation and compensation plan, and established within riparian vegetation zones established along the reservoir on BC Hydro-owned properties.	Ongoing	In Compliance	The establishment of nest boxes for cavity-nesting waterfowl is addressed in Section 7.3.6 of the VWMMP (Wetland compensation). An expanded nest box program to mitigate for the loss of nesting sites for cavity nesting bird species has been developed based on discussions with the VWTC. Implementation began in 2017 after review by the VWTC.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 16	· A design for bat roosting habitat in HWY 29 bridges to BC Ministry of Transportation and Infrastructure (MOTI) for consideration into new bridge designs located within the Peace River valley.	Complete	In Compliance	BC Hydro received notification on 25 October 2018 from the Regional Manager of Environmental Services, MOTI, that MOTI does not support the placement of bat roosting boxes on bridges. Therefore, the bat boxes will not be integrated into the designs of any new bridges, including the planned Farrell Creek, Halfway River, Cache Creek and Lynx Creek bridges.
EAC 16	· Following rock extraction at Portage Mountain, creation of hibernating and roosting sites for bats.	Ongoing	In Compliance	The Portage Mountain Quarry development plan has been altered to avoid impacting bat hibernacula. Section 4.2 of the CEMP states that blasting will be prohibited within 300 m of bat hibernacula from September 15 to May 15. A monitoring plan has also been developed through the VWTC to detect any changes to bat use of the hibernacula at Portage Mountain due to quarrying activity, if any. Road construction and production blasts occurred in summer of 2019, outside of the restricted activity period that was established to mitigate impacts to bat use of the hibernacula (i.e., September 15 to May 15). Noise monitoring conducted at the site determined that noise and vibration caused by test blasts did not exceed thresholds at hibernacula locations, as defined in Best Management Practices for Bats in BC (2016).
EAC 16	· Creation of natural or artificial piles of coarse woody debris dispersed throughout the disturbed landscape to maintain foraging areas and cold-weather rest sites, and arboreal resting sites, for the fisher population south of the Peace River.	Ongoing	In Compliance	Twenty-five (25) coarse woody debris (CWD) piles for fisher have been created within the dam site area and 31 were constructed along the transmission line. BC Hydro has installed signs that advise people to remain distant from the piles. Additional piles are being installed along the transmission line ROW at a target installation rate of one per kilometer where adjacent habitat is appropriate for fisher. Additional CWD piles for fisher are also being planned near the reservoir clearing boundaries on the south side of the Peace River.
EAC 16	The EAC Holder must provide this draft Vegetation and Wildlife Mitigation and Monitoring Plan to Environment Canada, FLNR, MOE, and Aboriginal Groups for review a minimum of 90 days prior to the commencement of construction.	Complete	In Compliance	The draft and first revision of the VWMMP was submitted to regulatory agencies and Indigenous groups on October 17, 2014, and April 7, 2015, respectively.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 16	The EAC Holder must file the final Vegetation and Wildlife Mitigation and Monitoring Plan with EAO, Environment Canada, FLNR MOE, and Aboriginal Groups, a minimum of 30 days prior to commencement of construction.	Complete	In Compliance	The final VWMMP was submitted to the same recipients on June 5, 2015. Section 2.0 of the VWMMP provides a concordance table which shows how each of the requirements of Condition 16 is addressed in the Plan, including references to the CEMP as appropriate.
EAC 16	The EAC Holder must develop, implement and adhere to the final Vegetation and Wildlife Mitigation and Monitoring Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The 2015 Annual Report for the VWMMP describes implementation of the plan, with subsequent annual reports providing updates.
EAC 17	As part of the Vegetation Clearing and Debris Management Plan, if the EAC Holder must conduct clearing activities during these specified critical time periods: · Songbirds: May 1 through July 31; · Trumpeter swan, raptors and owls: April 1 through July 31; and · Sharp-tailed grouse: mid-April and mid-July (lek to nesting to hatching).	Ongoing	In Compliance	Section 3.5 of the VCDMP and Section 4.17 of the CEMP describe mitigation for addressing the requirements outlined in EAC Condition 17. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify appropriate implementation of the EPP. Environmental audits to evaluate compliance with the CEMP and EAC and Federal Decision Statement Project approval conditions are also conducted by the Independent Environmental Monitor (IEM).
EAC 17	The EAC Holder must first develop and implement a nest and lek search protocol, in consultation with the FLNR and MOE.	Ongoing	In Compliance	The nest search protocol was revised in 2016, was included as Appendix 2 of the 2016 Annual Report for the VWMMP, and submitted to regulatory agencies and Indigenous groups on March 31, 2017. The Sharp-tailed Grouse lek mitigation program was revised based on discussions with the VWTC and provided in Section 4.17 of CEMP Revision 5 issued15 February 2019.
EAC 17	The EAC Holder must provide FLNR and MOE with all known nest and lek locations.	Ongoing	In Compliance	BC Hydro provides FLNR and MOE with all known nest and lek locations annually. All 2019 data on known nest locations will be provided to FLNR and MOE by October 31, 2020.
EAC 17	The EAC Holder must flag these sites and require employees and contractors to avoid these sites.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 17	The nest and lek search protocol must include specifications for buffers around active nest sites and flagging, as required by FLNR.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	The EAC Holder must avoid human-wildlife conflicts during the construction phase by implementing measures detailed in a Human-Wildlife Conflict Management Plan.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	The Human-Wildlife Conflict Management Plan must include at least the following: · Prior to the commencement of work, the EAC Holder must ensure that all crews have participated in Bear Aware or a similar training program.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	· Prohibit feeding of wildlife at work sites.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	· Ensure that all construction areas and worker housing sites are kept clean and free of discarded anthropogenic food sources, with garbage securely stored in verified bear-proof containers or removed from site.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	· Prohibit work crews from hunting while on any work sites, Project built roads and worker housing sites.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 18	· Prohibit work crews from cleaning game at construction sites. Project built roads and worker housing sites.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	· Measures to minimize road mortality, including posted speed limits, provision of alternative transportation options including, for example, carpooling,	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	· Procedures for reporting dangerous human-wildlife incidents and incidents of wildlife mortality.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	· Prompt notification to the appropriate authorities of incidences of roadkill, or, in the event a wildlife act permit to manage road kill is obtained by the EAC Holder, the EAC Holder must implement management measures as per permit requirements.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	· Review of effectiveness of measures to manage dangerous human-wildlife interactions.	Ongoing	In Compliance	Section 4.17 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 18	The EAC Holder must provide the draft Human-Wildlife Conflict Management Plan to the MOE Conservation Officer Service for review a minimum of 90 days prior to the commencement of construction.	Complete	In Compliance	The Human Wildlife Conflict Management Plan is described in Section 4.17 of the CEMP for the Project. The Draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 18	The EAC Holder must file the final Human-Wildlife Conflict Management Plan with EAO and the MOE Conservation Officer Service a minimum of 30 days prior to the commencement of construction.	Complete	In Compliance	The final (Revision 1) of the CEMP was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. Subsequent revisions to the CEMP have not resulted in changes to the Human-Wildlife Conflict Management Plan (Revision 2 of the CEMP was issued in February 2016 and Revision 4 in July 2016 (Revision 3 was not formally published). Revision 5 was issued on February 19, 2019, Revision 5.1 on April 19, 2019 and Revision 6 on July 15, 2019).
EAC 18	The EAC Holder must develop, implement and adhere to the final Human-Wildlife Conflict Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of the EPP.
EAC 19	The EAC Holder must use reasonable efforts to avoid and reduce injury and mortality to amphibians and snakes on roads adjacent to wetlands and other areas where amphibians or snakes are known to migrate across roads including locations with structures designed for wildlife passage	Ongoing	In Compliance	BC Hydro is using reasonable efforts to avoid and reduce injury and mortality to amphibians and snakes. Section 4.17 of Rev 4 of the CEMP outlines mitigation for snakes and amphibians. For amphibian salvage and relocation, BC Hydro has obtained Wildlife Act permit FJ16- 226024, which is valid until 31 December 2023. BC Hydro developed the Site C Western Toad Management Procedure, which describes a protocol for conducting amphibian assessments within and adjacent to work sites, halting work when necessary, and translocating migrating toads along their way and past dangerous work areas. The Site C Western Toad Management Procedure was developed through and deemed complete by the VWTC. This Procedure has been passed to all relevant contractors since its completion 21 July 2017, for inclusion in appropriate EPPs. Also, BC Hydro implemented barrier fencing to prevent migration of toads across roads at Portage Mountain quarry, and also incorporated special amphibian crossing culverts into the design of the road to the quarry. Amphibian salvage and translocation activities in 2019 are described in the 2019 Annual Report for the VWMMP, to be

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				submitted by March 31, 2020.
EAC 19	The EAC Holder must consult with Environment Canada, FLNR and MOE with regard to the size and number of the proposed structures prior to construction.	Ongoing	In Compliance	A 15 m long 1,000 mm diameter culvert has been installed along the access road to Portage Mountain, following guidance described in Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British Columbia (BC MWLAP 2004).
EAC 20	The EAC Holder must use reasonable efforts to minimize disturbance to wildlife during the construction phase by scheduling construction activities in accordance with the Construction Environmental Management Plan.	Ongoing	In Compliance	Section 4.17 of the CEMP describes how requirements for EPPs in minimizing disturbance to wildlife during the construction phase, including conducting works within the least risk timing windows. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 21	The EAC Holder must ensure that measures implemented to manage harmful Project effects on wildlife resources are effective by implementing monitoring measures detailed in a Vegetation and Wildlife Mitigation and Monitoring Plan.	Ongoing	In Compliance	The final VWMMP was developed and submitted to regulatory agencies, governments and Indigenous groups on June 5, 2015.
EAC 21	The Vegetation and Wildlife Mitigation and Monitoring Plan must be developed by a QEP.	Complete	In Compliance	Section 2.3 of the VWMMP lists the QEPs who prepared the plan.
EAC 21	The Vegetation and Wildlife Mitigation and Monitoring Plan must include at least the following: · Monitor Bald Eagle nesting populations adjacent to the reservoir, including their use of artificial nest structures.	Ongoing	In Compliance	Monitoring of the Bald Eagle nesting population occurred three times over May and June in 2019. The annual bald eagle nest monitoring report will be provided in the 2019 Annual Report of the VWMMP, which will be submitted by March 31, 2020.
EAC 21	· Monitor waterfowl and shorebird populations and their use of natural wetlands, created wetlands, and artificial wetland features.	Ongoing	In Compliance	Spring and fall waterfowl and shorebird (i.e., waterbird) surveys were conducted along the Peace River and the transmission line ROW in 2019. The annual waterbird monitoring report will be provided in the 2019 Annual Report of the VWMMP, which will be submitted by March 31, 2020.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 21	· Monitor amphibian use of migration crossing structures installed along Project roads.	Ongoing	In Compliance	A 15 m long 1,000 mm diameter culvert has been installed along the access road to Portage Mountain, following guidance described in Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British Columbia (BC MWLAP 2004). Monitoring of amphibian use of the crossing structure was conducted from April 1 through September 30, following the requirements of the Site C Western Toad Management Procedure. That monitoring involved surveys for western toad activity that occur weekly during the caution period of April 1 to May 31 and August 16 to September 30, and daily surveys from June 1 to August 15. No western toad use of the crossing structure has yet been documented, but western toad activity in general has been low.
EAC 21	· Survey songbird and ground-nesting raptor populations during construction and operations.	Ongoing	In Compliance	Songbirds and ground-nesting raptors were surveyed in separate monitoring programs in 2018. The 2019 results of those surveys will be included in the 2019 Annual Report of the VWMMP, which will be submitted by March 31, 2020.
EAC 21	· Survey the distribution of western toad and garter snake populations downstream of the Site C dam to the Pine River.	Ongoing	In Compliance	BC Hydro developed the Downstream Western Toad and Garter snake Monitoring Program, which was deemed complete by the VWTC in 2018. Implementation of the program began in 2018. The results of this program for 2019 will be included in the 2019 Annual Report of the VWMMP, which will be submitted by March 31, 2020.
EAC 21	· Require annual reporting during the construction phase and during the first 10 years of operations to EAO, beginning 180 days following commencement of construction.	Ongoing	In Compliance	Results of monitoring surveys and other programs are described in the 2019 Annual Report for the VWMMP, which will be submitted to regulatory agencies and Indigenous groups by March 31, 2020.
EAC 21	The EAC Holder must provide this draft Vegetation and Wildlife Mitigation and Monitoring Plan to FLNR, MOE, Environment Canada and Aboriginal Groups for review a minimum of 90 days prior to the commencement of construction.	Complete	In Compliance	The draft and first revision of the VWMMP was submitted to regulatory agencies and Indigenous groups on October 17, 2014, and April 7, 2015, respectively. The final VWMMP was submitted to the same recipients on June 5, 2015.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 21	The EAC Holder must file the final Vegetation and Wildlife Mitigation and Monitoring Plan must with EAO, FLNR, MOE, Environment Canada and Aboriginal Groups a minimum 30 days prior to the commencement of construction.	Complete	In Compliance	The final VWMMP was submitted to regulatory agencies and Indigenous groups on June 5, 2015.
EAC 21	The EAC Holder must develop, implement and adhere to the final Vegetation and Wildlife Mitigation and Monitoring Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The VWMMP was submitted in June 2015, and is being implemented and adhered to. Implementation of the VWMMP in 2019 will be summarized in the 2019 Annual Report for the VWMMP, which will be submitted by March 31, 2020.
EAC 22	The EAC Holder must implement measures that reduce the potential for new or increased public access via roads constructed for the Project, by using pre-existing routes where feasible, decommissioning temporary access roads as soon as practicable after use,	Ongoing	In Compliance	Appendix A of the VCDMP describes how the requirements of Condition 22 are being met during construction. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 22	And proposing to FLNR Project access roads that should be closed to the public in areas known to be important to Aboriginal groups.	Ongoing	In Compliance	Specific access routes will be identified in relevant permit applications, such as the Forest Act Occupant Licence to Cut permits. Consultation on these permits is undertaken with the groups identified in the condition, which allows for discussion about the selection of new or pre-existing access routes, and decommissioning requirements.
EAC 22	The EAC Holder must develop mitigation measures in collaboration with FLNR and the Saulteau, West Moberly, Halfway River, Doig River, Blueberry River and Prophet River First Nations, and McLeod Lake Indian Band.	Ongoing	In Compliance	Specific access routes will be identified in relevant permit applications, such as the Forest Act Occupant Licence to Cut permits. Consultation on these permits is undertaken with the groups identified in the condition, which allows for discussion about the selection of new or pre-existing access routes, and decommissioning requirements. The draft and final VCDMP were submitted to regulatory agencies, governments, and Indigenous groups for comment on October 17, 2014 and June 5, 2015, respectively. The VCDMP was updated in July 2019 and provided to regulatory agencies and Indigenous groups as noted above.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 23	The EAC Holder must maintain current knowledge of Project effects on the status of listed species by tracking updates for species identified by the Province, the Committee on the Status of Endangered Wildlife in Canada, and the Species at Risk Act.	Ongoing	In Compliance	In 2019 the conservation status of nine species with potential to occur in the Site C Project area changed. All changes for previously listed species represented reductions in conservation status, largely due to the results of regional rare plant surveys showing that rare plants identified during Site C baseline surveys are not as rare as previously believed. In 2019, the conservation status of one species changes from Red to Blue, and the status of seven species changed from Blue to Yellow. The formerly identified species Erigeron pacalis (Peace Daisy) has now been deleted from the B.C. Conservation Data Centre's list because the original occurrence is believed to have been misidentified, and no other occurrences have been documented despite the considerable search effort expended.
EAC 23	Should the status of a listed species change for the worse during the course of the construction of the Project due to Project activities, the EAC Holder, must work with Environment Canada FLNR and MOE to determine if any changes to the associated management plans or monitoring programs are required to mitigate effects of the Project on affected listed species.	Ongoing	In Compliance	Due to the listing of bank swallow as Threatened on Schedule 1 of SARA in November 2017, BC Hydro is developing a bank swallow mitigation and monitoring plan collaboratively through the VWTC. The plan remains in development through ongoing discussions with the VWTC, including CWS.
EAC 24	The EAC Holder must identify suitable lands for ungulate winter range by the end of the first year of construction, on BC Hydro-owned lands, or Crown lands, in the vicinity of the Project in consultation with FLNR.	Complete	In Compliance	BC Hydro fulfilled this condition in 2015. Section 8.11 of the VWMMP addresses this condition. Suitable winter range on BC Hydro owned land was identified in Figures 9, 10 and 11 of the VWMMP, and in Forest Act Occupant Licence to Cut permit applications overlapping with provincially designated winter range.
EAC 24	If FLNR determines that identified winter range is required, the EAC Holder must identify and maintain suitable BC Hydro-owned lands for ungulate winter range to the satisfaction of FLNR and for the length of time determined by FLNR.	Complete	In Compliance	BC Hydro fulfilled this condition in 2015. Section 8.11 of the VWMMP addresses this condition. Suitable winter range on BC Hydro owned land was identified in Figures 9, 10 and 11 of the VWMMP, and in Forest Act Occupant Licence to Cut permit applications overlapping with provincially designated winter range.
	CURRENT USE OF LANDS AND RESOURCES			

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	FOR TRADITIONAL PURPOSES			
EAC 25	The EAC Holder must undertake a ground truthing program of traditional plants currently used by Aboriginal Groups in collaboration with Aboriginal Groups prior to construction.	Ongoing	In Compliance	BC Hydro has initiated ground truthing programs with the purpose of engaging with Indigenous land users, including registered trapline holders, to verify and accurately locate Indigenous land use information, and to identify concerns related to specific features, or sites that may be affected by the Project. BC Hydro has provided funding to Indigenous groups for ground truthing through Consultation and Capacity Funding Agreements. During this reporting period, ground truthing was undertaken by Doig River and Halfway River First Nations. BC Hydro is also implementing a cultural monitoring program that is intended to provide an opportunity for local First Nations to identify areas of cultural significance in order to avoid, mitigate or otherwise protect them from construction and associated project activities. This was ongoing throughout the reporting period. In addition, to update and inform Indigenous communities of construction progress and upcoming milestones, BC Hydro conducted dam site tours, tours along Highway 29 and boat tours along the Peace River. BC Hydro remains engaged with Saulteau registered trapline holders whose tenure areas are affected by project construction and operations. BC Hydro contacts registered trapline holders in advance of any ground disturbance work planned to take place within their respective trapline areas. BC Hydro also shares the quarterly Notices of Construction Activities with registered trapline holders and advises it is available to meet to discuss any questions regarding the activities in the notice. BC Hydro continues to consult with Indigenous groups regarding construction plans and sent invitation letters in April and September 2017, January, June and August 2018, and

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				March, June and August 2019 highlighting areas where construction is planned in order that Indigenous groups could ground truth areas of traditional significance prior to construction. Ground-truthing information received continues to be used to support and inform mitigation measures and relevant mitigation plans. BC Hydro is coordinating with interested nearby/proximal Indigenous groups to coordinate pre-clearing harvesting activities in construction areas prior to ground disturbance or clearing activities.
EAC 25	Where specific plants are known to be harvested by Aboriginal Groups, the EAC Holder must make reasonable efforts to consult interested Aboriginal Groups using the results of the ground truthing to inform the development and implementation of mitigation and compensation measures to accommodate adverse effects of the Project on plants traditionally used by Aboriginal Groups.	Ongoing	In Compliance	Based on the results of ground truthing to date, a number of plant species with cultural, food and medicinal value have been identified and are listed in the Aboriginal Plant Use Mitigation Plan (APUMP) annual reports. The 2018-2019 APUMP Annual Report, describing activities from April 2018 through March 2019, was submitted to the EAO on March 29, 2019 and is shared with Indigenous groups on the project website along with previous APUMP and other annual reports. Indigenous groups are notified when reports are shared through the bi-weekly Site C Information Update. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. BC Hydro continues to work with Indigenous groups to identify plant species of traditional Indigenous value through ongoing ground truthing activities. These species will be incorporated into reclamation plans, as appropriate. As draft reclamation plans are developed to address the adverse effects of the project on plants traditionally used by Indigenous groups they will be provided to Indigenous Groups for review and comment. Through this process, as well as new information provided through future ground truthing, plants of high traditional Indigenous value will continue to be identified and included in the mix of species considered for re-vegetation conducted under the VWMMP and the Soil Management, Site Restoration

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				and Revegetation Plan (Appendix H of the CEMP).
EAC 26	The EAC Holder must develop an Aboriginal Plant Use Mitigation Plan to describe how the effects of the Project on plants currently harvested by Aboriginal Groups will be mitigated, including through compensation measures.	Ongoing	In Compliance	The Aboriginal Plant Use Mitigation Plan (June 2015) is available on the Project website. Based on the results of ground truthing to date, a number of plant species with cultural, food and medicinal value have been identified and are listed in the Aboriginal Plant Use Mitigation Plan (APUMP) annual reports. The 2018-2019 APUMP Annual Report, describing activities from April 2018 through March 2019, was submitted to the EAO on March 29, 2019 and is shared with Indigenous groups on the project website along with previous APUMP and other annual reports. Indigenous groups are notified when reports are shared through the bi-weekly Site C Information Update. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. BC Hydro continues to work with Indigenous groups to identify plant species of traditional Indigenous value through ongoing ground truthing activities. These species will be incorporated into reclamation plans, as appropriate. As draft reclamation plans are developed to address the adverse effects of the project on plants traditionally used by Indigenous groups they will be provided to Indigenous Groups for review and comment.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 26	The Aboriginal Plant Use Mitigation Plan must include at least the following: · Identify within the Project footprint including areas being reclaimed potential sites for relocation of medicinal and food plants;	Ongoing	In Compliance	Based on the results of ground truthing to date, a number of plant species with cultural, food and medicinal value have been identified and are listed in the Aboriginal Plant Use Mitigation Plan (APUMP) annual reports. The 2018-2019 APUMP Annual Report, describing activities from April 2018 through March 2019, was submitted to the EAO on March 29, 2019 and is shared with Indigenous groups on the project website along with previous APUMP and other annual reports. Indigenous groups are notified when reports are shared through the bi-weekly Site C Information Update. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. BC Hydro continues to work with Indigenous groups to identify plant species of traditional Indigenous value through ongoing ground truthing activities. These species will be incorporated into reclamation plans, as appropriate. As draft reclamation plans are developed to address the adverse effects of the project on plants traditionally used by Indigenous groups they will be provided to Indigenous Groups for review and comment. Through this process, as well as new information provided through future ground truthing, plants of high traditional Indigenous value will continue to be identified and included in the mix of species considered for re-vegetation conducted under the VWMMP and the Soil Management, Site Restoration and Revegetation Plan (Appendix H of the CEMP).

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 26	Relocate when deemed necessary by a QEP.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. Rare plant species impacted, or potentially impacted, by project construction activities may be included in the experimental rare plant translocation program (described in section 8.2 of the VWMMP) based on the characteristics of the species, and availability of suitable locations and habitat conditions near to the construction area. For other (non-rare) species, a QEP will identify those species suitable for use in reclamation plans, based on the biological and site conditions of identified reclamation areas as well as the requirements of the target plant species. Currently, "Rat root" (Acorus americanus) is the only rare plant species of traditional Indigenous value identified through ground truthing (currently Red-listed in BC by the BC Conservation Data Centre).
EAC 26	· Identify within the Project footprint including areas being reclaimed opportunities to restore ecological communities that support species of high traditional use value for affected Aboriginal Groups	Ongoing	In Compliance	Based on the results of ground truthing to date, a number of plant species with cultural, food and medicinal value have been identified and are listed in the Aboriginal Plant Use Mitigation Plan (APUMP) annual reports. The 2018-2019 APUMP Annual Report, describing activities from April 2018 through March 2019, was submitted to the EAO on March 29, 2019 and is shared with Indigenous groups on the project website along with previous APUMP and other annual reports. Indigenous groups are notified when reports are shared through the bi-weekly Site C Information Update. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. BC Hydro continues to work with Indigenous groups to identify plant species of traditional Indigenous value through ongoing ground truthing activities. These species will be incorporated into reclamation plans, as appropriate. As draft reclamation plans are developed to address the adverse effects of the project on plants traditionally used by Indigenous groups they will be provided to Indigenous Groups for review and comment. Through this process, as well as new information provided

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				through future ground truthing, plants of high traditional Indigenous value will continue to be identified and included in the mix of species considered for re-vegetation conducted under the VWMMP and the Soil Management, Site Restoration and Revegetation Plan (Appendix H of the CEMP).
EAC 26	And undertake restoration of those ecological communities where deemed necessary by a QEP.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. Plant species of traditional Indigenous value will be identified and will be incorporated into reclamation plans, as appropriate. As draft reclamation plans are developed to address the adverse effects of the project on plants traditionally used by Indigenous groups they will be provided to Indigenous Groups for review and comment. Additionally, plants of traditional Indigenous value will continue to be identified and included in the mix of species considered for re-vegetation conducted under the VWMMP and the Soil Management, Site Restoration and Revegetation Plan (Appendix H of the CEMP).
EAC 26	· Identify opportunities and provide financial support for propagation of indigenous plant species for use in reclamation programs, such as that offered through the indigenous nursery owned by the West Moberly First Nation and Saulteau First Nation.	Ongoing	In Compliance	BC Hydro has entered into a new contract with Twin Sisters Nursery (an indigenous nursery owned by West Moberly First Nations and Saulteau First Nations) for supply and delivery of live native seedling stock to support re-vegetation and reclamation activities. Seeds of local plant species of traditional Indigenous value will continue to be collected by Twin Sisters and available for use in reclamation plans as required.
EAC 26	The EAC Holder must make reasonable commercial efforts to obtain up to $1 million in commercial service contracts with indigenous nurseries for provision of plants.	Ongoing	In Compliance	BC Hydro has entered into a new contract with Twin Sisters Nursery (an indigenous nursery owned by West Moberly First Nations and Saulteau First Nations) for supply and delivery of live native seedling stock to support re-vegetation and reclamation activities. Seeds of local plant species of traditional Indigenous value will continue to be collected by Twin Sisters and available for use in reclamation plans as required.
EAC 26	The EAC Holder must make reasonable efforts to develop the Aboriginal Plant Use Mitigation Plan in collaboration with FLNR and Aboriginal Groups, at least 90 days prior	Complete	In Compliance	The draft Aboriginal Plant Use Mitigation Plan (APUMP) was submitted to regulatory agencies and Indigenous groups on October 17, 2014.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	to Project activities that may affect traditional plants.			
EAC 26	The EAC Holder must file the final Aboriginal Plant Use Mitigation Plan with EAO, FLNR and Aboriginal Groups at least 30 days prior to Project activities that may affect traditional plants.	Complete	In Compliance	The final Aboriginal Plant Use Mitigation Plan was submitted to regulatory agencies and Indigenous groups on June 5, 2017.
EAC 26	The EAC Holder must develop, implement and adhere to the final Aboriginal Plant Use Mitigation Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The APUMP describes the scope of the ground truthing program and how the information gained during ground truthing is used to inform mitigation measures related to plants of traditional Indigenous value. The 2018-2019 APUMP Annual Report, describing activities from April 2018 through March 2019, was submitted to the EAO on March 29, 2019 and is shared with Indigenous groups on the project website along with previous APUMP and other annual reports. Indigenous groups are notified when reports are shared through the bi-weekly Site C Information Update. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. BC Hydro will update the plan as required based on new information. Initiatives described in the Aboriginal Plant Use Mitigation Plan will continue to be implemented through project construction.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 27	In order to manage adverse effects on Aboriginal plant, fish and game harvesters during both the construction and operations phases of the Project, the EAC Holder must develop, as part of the Construction Communication Plan, a communications program (Program) for informing Aboriginal harvesters about construction activities that may affect their harvesting opportunities for plants, fish, and game, as well as access to those opportunities.	Ongoing	In Compliance	BC Hydro has developed an Aboriginal Group Communication Plan (AGCP; see Appendix D of the CEMP) which describes the measures being taken to inform Indigenous groups about construction activities that may affect harvesting opportunities. The 2018-2019 AGCP Annual Report, describing activities from April 2018 through March 2019, was submitted to the EAO on March 29, 2019 and is shared with Indigenous groups on the project website along with previous AGCP and other annual reports. Indigenous groups are notified when reports are shared through the bi-weekly Site C Information Update. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. The AGCP will be updated as required to reflect evolving project communications with Indigenous Groups through to the end of construction.
EAC 27	The Program must also include information regarding how fish monitoring programs will be used to inform Aboriginal harvesters about changes in fish community composition during operations.	Ongoing	In Compliance	As described in Section 5.0 of the Aboriginal Group Communication Plan (AGCP), BC Hydro will communicate the results of the Fisheries and Aquatic Habitat Monitoring and Follow-up Program to Indigenous groups. This includes the Site C Reservoir Fish Community monitoring program, which assesses the effects of river to reservoir transformation on the fish community in the Site C Reservoir and associated tributaries. Indigenous groups will be provided with monitoring reports annually. Community-based meetings with Indigenous groups could also be held to share these results and inform the communities on changes to fish community composition. The 2018-2019 AGCP Annual Report, describing activities from April 2018 through March 2019, was submitted to the EAO on March 29, 2019 and is shared with Indigenous groups on the project website along with previous AGCP and other annual reports. Indigenous groups are notified when reports are shared through the bi-weekly Site C Information Update. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 27	The EAC Holder must make all reasonable efforts to develop the draft Program in collaboration with FLNR and Aboriginal Groups, at least 90 days prior to Project activities that may affect Aboriginal harvesting opportunities.	Complete	In Compliance	The draft Aboriginal Group Communications Plan is described in Appendix D of the CEMP for the Project. The Draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014.
EAC 27	The EAC Holder must file the final Program with EAO, FLNR and Aboriginal Groups at least 30 days prior to any activities that may affect Aboriginal harvesting opportunities.	Complete	In Compliance	The final (Revision 1) of the CEMP was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. Revision 5.0 of the CEMP was issued in February 2019, Revision 5.1 in April 2019, Revision 6.0 in July 2019 and Revision 6.1 in December 2019.
EAC 27	The EAC Holder must develop, implement and adhere to the final Program, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The 2018-2019 AGCP Annual Report, describing activities from April 2018 through March 2019, was submitted to the EAO on March 29, 2019 and is shared with Indigenous groups on the project website along with previous AGCP and other annual reports. Indigenous groups are notified when reports are shared through the bi-weekly Site C Information Update. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020.
EAC 28	In order to mitigate the loss of use and access to structures used in Aboriginal traditional and current harvesting (e.g. cabins associated with tenured trap lines) as a result of Project reservoir flooding, the EAC Holder must make all reasonable efforts to consult with Aboriginal Groups and FLNR to identify the locations of such structures, including permanent, untenured structures.	Ongoing	In Compliance	BC Hydro remains engaged with Saulteau registered trapline holders whose tenure areas are affected by project construction and operations. BC Hydro contacts registered trapline holders in advance of any ground disturbance work planned to take place within their respective trapline areas. BC Hydro also shares the quarterly Notices of Construction Activities with registered trapline holders and advises it is available to meet to discuss any questions regarding the activities in the notice. Indigenous groups have also identified two areas containing structures within or near the project area that are used for cultural purposes. BC Hydro is continuing to engage with the respective Indigenous groups on their cultural interests and potential measures to avoid or mitigate impacts to these structures.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				BC Hydro has a standing invitation to Indigenous groups to meet and discuss any issues or concerns regarding the project as construction proceeds, and remain committed to conducting ground truthing with any interested Indigenous groups in the project activity zone.
EAC 28	Where the loss of such structures are identified and confirmed through ground-truthing, the EAC Holder must make reasonable efforts to consult with Aboriginal groups and FLNR to establish measures to compensate for the loss of such structures prior to the loss of the structures.	Ongoing	In Compliance	BC Hydro remains engaged with Saulteau registered trapline holders whose tenure areas are affected by project construction and operations. BC Hydro contacts registered trapline holders in advance of any ground disturbance work planned to take place within their respective trapline areas. BC Hydro also shares the quarterly Notices of Construction Activities with registered trapline holders and advises it is available to meet to discuss any questions regarding the activities in the notice. Indigenous groups have also identified two areas containing structures within or near the project area that are used for cultural purposes. BC Hydro is continuing to engage with the respective Indigenous groups on their cultural interests and potential measures to avoid or mitigate impacts to these structures. BC Hydro has a standing invitation to Indigenous groups to meet and discuss any issues or concerns regarding the project as construction proceeds, and remain committed to conducting ground truthing with any interested Indigenous groups in the project activity zone.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 28	The EAC Holder must implement a process for the identification of, and compensation for untenured structures that are culturally important to Aboriginal Groups at least 30 days prior to the commencement of construction activities.	Ongoing	In Compliance	BC Hydro remains engaged with Saulteau registered trapline holders whose tenure areas are affected by project construction and operations. BC Hydro contacts registered trapline holders in advance of any ground disturbance work planned to take place within their respective trapline areas. BC Hydro also shares the quarterly Notices of Construction Activities with registered trapline holders and advises it is available to meet to discuss any questions regarding the activities in the notice. Indigenous groups have also identified two areas containing structures within or near the project area that are used for cultural purposes. BC Hydro is continuing to engage with the respective Indigenous groups on their cultural interests and potential measures to avoid or mitigate impacts to these structures. BC Hydro has a standing invitation to Indigenous groups to meet and discuss any issues or concerns regarding the project as construction proceeds, and remain committed to conducting ground truthing with any interested Indigenous groups in the project activity zone.
	LAND AND RESOURCE USE			
	Harvest of Fish and Wildlife Resources			
EAC 29	In order to appropriately manage effects on disruption of access to registered trapline holders and Guide Outfitters during construction, the EAC Holder must make reasonable efforts to conclude access agreements with these affected registered third parties, unless there are safety concerns involved.	Ongoing	In Compliance	To date BC Hydro has obtained a total of nine agreements from the 11 trapline holders that are impacted by construction activities. Two agreements are under development. Agreements have also been reached with the 2 out of 4 guide outfitters impacted by construction activities.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 29	Efforts undertaken by the EAC Holder to reach access agreements must be made to the satisfaction of EAO prior to the disruption of access to trapline holders and guide outfitters	Ongoing	In Compliance	To date BC Hydro has obtained a total of nine agreements from the 11 trapline holders that are impacted by construction activities. Two agreements are under development. Agreements have also been reached with the 2 out of 4 guide outfitters impacted by construction activities.
	Agriculture			
EAC 30	In order to avoid or manage the effects of the project on agricultural land owners and tenure holders, the EAC Holder must develop an Agricultural Mitigation and Compensation Plan.	Complete	In Compliance	BC Hydro submitted the final Agricultural Mitigation and Compensation Plan on July 27, 2017. BC Hydro submitted Rev 1 of the Agricultural Mitigation and Compensation Plan on September 25, 2017.
EAC 30	The Agricultural Mitigation and Compensation Plan must be developed by a QEP.	Complete	In Compliance	Section 2.1 and Appendix B of the final Agricultural Mitigation and Compensation Plan lists the QEPs who prepared the plan.
EAC 30	As part of Agricultural Mitigation and Compensation Plan development, the EAC Holder must evaluate effects on agricultural land owners and tenure holders, and develop mitigation and compensation measures consistent with industry compensation standards, to mitigate effects or compensate for losses.	Ongoing	In Compliance	Section 2.4 of the final Agricultural Mitigation and Compensation Plan describes the process that will be undertaken to develop individual farm mitigation plans with directly affected agricultural land owners and tenure holders. Development of individual farm mitigation plans is underway as part of the property acquisition process.
EAC 30	The Agricultural Mitigation and Compensation Plan must include at least the following: · Inclusion of suitable land in the Agricultural Land Reserve in consultation with the Agriculture Land Commission.	Ongoing	In Compliance	Section 2.5 of the final Agricultural Mitigation and Compensation Plan describes the process for suitable land to be included in the Agricultural Land Reserve. This will primarily occur during the operations phase.
EAC 30	· When residual land parcels are to be sold, consolidate and/or connect residual agricultural parcels with adjacent agricultural land holdings, where practical and when owner(s) and BC Hydro agree.	Ongoing	In Compliance	Section 2.5 of the final Agricultural Mitigation and Compensation Plan describes the process for consolidation and/or connection of residual agricultural parcels. This will primarily occur during the operations phase.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 30	· Funding for mitigation actions for disruptions to agricultural land owners and tenure holders, including but not limited to the provision of alternative / replacement: - Livestock movement options and compensation for associated increased costs; - Infrastructure (irrigation and drainage improvements); - Water supplies; - Relocation of quality soil in selected locations; - Farm and field access; - Highway crossings; - Utility crossings; - Livestock watering and drainage works during construction, and restore original works after construction is completed; and - Fencing.	Ongoing	In Compliance	Section 2.4 of the final Agricultural Mitigation and Compensation Plan describes the process that will be undertaken to develop individual farm mitigation plans with directly affected agricultural land owners and tenure holders. Development of individual farm mitigation plans is underway as part of the property acquisition process.
EAC 30	· Minimize access to agricultural lands by construction workers and implement measures to minimize unauthorized public access.	Ongoing	In Compliance	Section 2.3 of the final Agriculture Mitigation Compensation Plan reflects this requirement. Construction mitigation measures that address impacts on agricultural land and operations are included in applicable contracts, in the Project's Construction Environmental Management Plan, and will be included in individual farm mitigation plans, as applicable.
EAC 30	· For impacts that cannot be avoided, the plan will contain an approach for reimbursements that compensate for associated financial losses due to disruptions to agricultural land use.	Ongoing	In Compliance	Section 2.4 of the final Agricultural Mitigation and Compensation Plan describes the process that will be undertaken to develop individual farm mitigation plans with directly affected agricultural land owners and tenure holders. Development of individual farm mitigation plans is underway as part of the property acquisition process.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 30	In addition to the above bulleted measures in this condition, establishment of an agricultural compensation fund of $20 million for use in the Peace Region or other areas of the province as necessary to compensate for lost agricultural lands and activities, and an approach for establishing the governance and allocation of funds.	Ongoing	In Compliance	Section 2.6 of the final Agricultural Mitigation and Compensation Plan describes the fund along with Appendix C, D, E, F and G. Establishment of the Fund Board and procurement of the Fund Administrator began on February 23, 2018. This was completed and the $20 million was transferred to the Fund Administrator for management on December 14, 2018. The Fund Administrator and Fund Board held the first grant intake with $250,000 in funding available in fall 2019. Seven projects were awarded approximately $210,000. The next intake for $250,000 will be held from December 2019 - January 2020 with a second intake of $250,000 planned in fall 2020.
EAC 30	The EAC Holder must work with the Ministry of Agriculture to establish a governance structure for the agriculture compensation fund that will ensure funds will be used to support enhancement projects that improve agricultural land, productivity or systems.	Complete	In Compliance	Section 1.7 and Appendix B of the final Agricultural Mitigation and Compensation Plan describes the joint Consultation Steering Committee established including staff from Ministry of Agriculture, Ministry of Energy and Mines, and BC Hydro to develop the Agricultural Mitigation and Compensation Plan.
EAC 30	The framework for the Agricultural Mitigation and Compensation Plan must be developed in consultation with the affected agricultural land owners and tenure holders, and the Ministry of Agriculture, and provided to Peace River Regional District and the District of Hudson's Hope for review within 1 year after the commencement of construction.	Complete	In Compliance	The Agricultural Mitigation and Compensation Plan Framework was submitted on July 27, 2016. Stakeholder consultation regarding the Framework took place from November 23 to January 29, 2016 in coordination with Ministry of Agriculture and Ministry of Energy and Mines. One hundred and fourteen (114) participant interactions occurred during the consultation period, including 81 attendees at regional meetings in December and January in Hudson's Hope, Fort St. John, Dawson Creek, and Chetwynd, 30 online feedback forms, and three written submissions. The Consultation Summary Report was posted publically on March 7, 2016. A meeting with Regional representatives on the Agricultural compensation fund occurred on March 8, 2016.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 30	The EAC Holder must provide this draft Agricultural Mitigation and Compensation Plan to the affected agricultural land owners and tenure holders, Peace River Regional District, District of Hudson's Hope, Ministry of Agriculture and FLNR for review within 18 months after the commencement of construction.	Complete	In Compliance	The final Agriculture Mitigation and Compensation Plan was submitted on July 27, 2017. The draft and final Agricultural Mitigation and Compensation Plan and Framework for the plan were both developed and submitted in accordance with the condition.
EAC 30	The EAC Holder must file the final Agricultural Mitigation and Compensation Plan with EAO, Peace River Regional District, District of Hudson's Hope the Ministry of Agriculture and FLNR within 2 years after the commencement of construction.	Complete	In Compliance	BC Hydro submitted the final Agricultural Mitigation and Compensation Plan on July 27, 2017. BC Hydro submitted Rev 1 of the Agricultural Mitigation and Compensation Plan on September 25, 2017.
EAC 30	The EAC Holder must develop, jointly with agricultural land owners and tenure holders, individual farm mitigation plans throughout the construction phase for all farms directly affected by the Project.	Ongoing	In Compliance	Section 2.4 of the final Agricultural Mitigation and Compensation Plan describes the process that will be undertaken to develop individual farm mitigation plans with directly affected agricultural land owners and tenure holders. Development of individual farm mitigation plans is underway as part of the property acquisition process.
EAC 30	The EAC Holder must develop, implement and adhere to the final Agricultural Mitigation and Compensation Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The final Agriculture Mitigation and Compensation Plan was submitted on July 27, 2017. BC Hydro submitted Rev 1 of the Agricultural Mitigation and Compensation Plan on September 25, 2017. The draft and final Agricultural Mitigation and Compensation Plan and Framework for the plan were both developed and submitted in accordance with the condition.
EAC 31	In addition to and separate from the compensation funding and mitigation funding the EAC Holder must fund and develop an Agriculture Monitoring and Follow-up Program for a 10 year period which includes the five years prior to reservoir filling and the first five years of operation.	Complete	In Compliance	The draft and final Agricultural Monitoring and Follow-up Programs were submitted to regulatory agencies and governments on October 23, 2015 and December 22, 2015, respectively. Section 3.0 of the Agricultural Monitoring and Follow-up Program contains a concordance table which shows how each of the requirements of Condition 31 is addressed in the Program. A summary update is also provided below.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 31	The Agriculture Monitoring and Follow-up Program must include at least the following: · Monitoring for Project-induced changes in wildlife habitat utilization, and evaluation of associated crop or feed storage damage for, agricultural operations within 5 km of the reservoir, to assess if there is an increase in wildlife-related crop depredation due to Project-related habitat losses. Monitoring must include pre- and post- reservoir filling field surveys, wildlife monitoring, farm operator interviews, and analysis of relevant records related to wildlife-related crop depredation.	Ongoing	In Compliance	Appendix A of the final Agriculture Monitoring and Follow-up Program describes the wildlife habitat utilization monitoring program. BC Hydro completed procurement of a qualified professional to carry out the program in early 2019 and monitoring began in 2019 five years prior to reservoir filling.
EAC 31	· Monitoring for Project-induced changes to humidity within 3 km of the reservoir, and evaluate associated effects on crop drying within this area. Monitoring must include collection and analysis of climate data, calculation of crop drying indices, and farm operator interviews.	Ongoing	In Compliance	Appendix B of the final Agriculture Monitoring and Follow-up Program describes the monitoring of potential effects on crop drying program. Agriculture monitoring began in 2019, five years prior to reservoir filling. Baseline climatic data collection has been on-going since the environmental assessment.
EAC 31	· Monitoring for Project-induced changes to groundwater elevations within 2 km of the reservoir (the area potentially influenced by groundwater elevation changes), and evaluate associated effects on crop productivity. Monitoring must include field surveys and farm operator interviews.	Ongoing	In Compliance	Appendix C of the final Agriculture Monitoring and Follow-up Program describes the monitoring of potential groundwater effects program. Agriculture monitoring began in 2019, five years prior to reservoir filling.
EAC 31	· Monitoring for climatic factors to estimate moisture deficits and to estimate irrigation water requirements in the vicinity of the reservoir to provide information for potential future irrigation projects. Data collection will be undertaken before	Ongoing	In Compliance	Appendix D of the final Agriculture Monitoring and Follow-up Program describes the monitoring to estimate irrigation requirements. Baseline climatic data collection has been on-going since the environmental assessment.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	reservoir filling, and in the 5 years after reservoir filling, and data will be reviewed as required for proposed irrigation projects.			
EAC 31	The Agriculture Monitoring and Follow-up Program reports must be provided annually during the monitoring and follow-up period to affected agricultural land owners and tenure holders, and Ministry of Agriculture. The results of the Agriculture Monitoring and Follow-up Program must inform the Farm Mitigation Plans.	Ongoing	In Compliance	BC Hydro provided the third annual report on the implementation of the Agriculture monitoring and Follow-up Program in July 2019. The fifth annual report will be provided in July 2020.
EAC 31	Reporting must begin 180 days after the commencement of the monitoring and follow-up program that is to begin 180 days after commencement of construction.	Ongoing	In Compliance	BC Hydro provided the third annual report on the implementation of the Agriculture monitoring and Follow-up Program in July 2019. The fifth annual report will be provided in July 2020.
EAC 31	The EAC Holder must provide this draft Agriculture Monitoring and Follow-up Program to the Ministry of Agriculture, Peace River Regional District and the District of Hudson's Hope for review within 90 days after the commencement of construction.	Complete	In Compliance	The draft Agricultural Monitoring and Follow-up Program was submitted to regulatory agencies and governments on October 23, 2015.
EAC 31	The EAC Holder must file the final Agriculture Monitoring and Follow-up Program with EAO, Ministry of Agriculture, Peace River Regional District and the District of Hudson's Hope within 150 days of commencement of construction.	Complete	In Compliance	The final Agricultural Monitoring and Follow-up Program was submitted to regulatory agencies and governments on December 22, 2015.
EAC 31	The EAC Holder must develop, implement and adhere to the final Agriculture Monitoring and Follow-up Program, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro provided the third annual report on the implementation of the Agriculture monitoring and Follow-up Program in July 2019. The fifth annual report will be provided in July 2020.
	Other Resource Industries			

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 32	The EAC Holder must develop an Oil, Gas and Energy Monitoring and Follow-up Program.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 32	The Oil, Gas and Energy Monitoring and Follow-up Program must, at a minimum, monitor baseline conditions and effects of increased sedimentation on Spectra intakes, during construction, and effects of increased water temperature and sedimentation during operations, on Spectra cooling operations for a period of 10 years after the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 32	Monitoring reports must be provided to Spectra Energy beginning 180 days following commencement of operations, and annually thereafter.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 32	The EAC Holder must provide this draft Oil, Gas and Energy Monitoring and Follow-up Program to Spectra Energy for review within 90 days after the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 32	The EAC Holder must file the final Oil, Gas and Energy Monitoring and Follow-up Program with EAO and Spectra Energy within 150 days after the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 32	The EAC Holder must develop, implement and adhere to the final Oil, Gas and Energy Monitoring and Follow-up Program, and any amendments, to the satisfaction of EAO.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 33	The EAC Holder must negotiate a Memorandum of Understanding (MOU) with the MOTI prior to material extraction at MOTI quarries or pits to compensate for material used by the Project and to maintain	Ongoing	In Compliance	BC Hydro signed a MOU with MOTI, dated November 12, 2013.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	availability of regional aggregate resources for MOTI operational needs.			
EAC 33	The MOU must include: · Aggregate source strategy to compensate for inundated Ministry aggregate sources, and	Ongoing	In Compliance	BC Hydro continues to work with MoTI to satisfy these commitments in the MOU. Aggregate sources have been set aside for MoTI during Hwy 29 construction in Peaceview Pit. BC Hydro continues to pursue other sources.
EAC 33	Strategy for the EAC Holder to stockpile surplus rock material at the West Pine, Wuthrich, and Portage Mountain quarries.	Ongoing	In Compliance	BC Hydro continues to work with MoTI to satisfy the commitments in the MOU. Material designs have been developed to provide the most efficient use of the Portage Mountain Quarry product which will minimize the disturbance of the quarry material. This will ensure a greater quantity of usable material remains in the quarry for future use.
EAC 33	The EAC Holder commitments as outlined in the MOU must be implemented and adhered to, to the satisfaction of the MOTI.	Ongoing	In Compliance	BC Hydro continues to work with MoTI to satisfy these commitments in the MOU. Current commitments include: coordination of Hwy 29 management, procurement construction and decommissioning. BCH continues to work with MoTI on pursuing material sources for future MoTI requirements from inundated sources.
EAC 34	The EAC Holder must discuss any overlap with the Project activity zone and preliminary reservoir impact lines with affected mineral and aggregate tenure holders.	Complete	In Compliance	No mineral tenures appear to overlap with the Project Activity Zone and preliminary impact lines. The dam site, reservoir and transmission line are covered by no registration reserves or conditional registration reserves. No mineral claims may be made in no-registration reserves. No activity may be undertaken without prior consent of BC Hydro in conditional registration reserves. Further the entire District of Hudson's Hope, the Peace Moberly Tract and the Proposed Peace Boudreau Protected area are also covered by no registration reserves. Portions of the preliminary impact lines on the north bank are not protected by any reserve, however, no mineral claims

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				appear to have been made. Other than reserves held by the MOTI, BC Hydro is not aware of any tenures issued to third parties for the purposes of aggregate production on Crown land that overlap with the Project Activity Zone and preliminary impact lines.
EAC 34	Where conflicts exist, the EAC Holder must make reasonable efforts to enter into agreements with mineral and aggregate tenure holders, to the satisfaction of EAO, to resolve conflicts with mineral and aggregate tenure holders.	Complete	In Compliance	No mineral tenures appear to overlap with the Project Activity Zone and preliminary impact lines. The dam site, reservoir and transmission line are covered by no registration reserves or conditional registration reserves. No mineral claims may be made in no-registration reserves. No activity may be undertaken without prior consent of BC Hydro in conditional registration reserves. Further the entire District of Hudson's Hope, the Peace Moberly Tract and the Proposed Peace Boudreau Protected area are also covered by no registration reserves. Portions of the preliminary impact lines on the north bank are not protected by any reserve, however, no mineral claims appear to have been made. Other than reserves held by the MOTI, BC Hydro is not aware of any tenures issued to 3rd parties for the purposes of aggregate production on Crown land that overlap with the Project Activity Zone and preliminary impact lines.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 34	Efforts made by the EAC Holder to enter into such agreements must be documented.	Complete	In Compliance	No mineral tenures appear to overlap with the Project Activity Zone and preliminary impact lines. The dam site, reservoir and transmission line are covered by no registration reserves or conditional registration reserves. No mineral claims may be made in no-registration reserves. No activity may be undertaken without prior consent of BC Hydro in conditional registration reserves. Further the entire District of Hudson's Hope, the Peace Moberly Tract and the Proposed Peace Boudreau Protected area are also covered by no registration reserves. Portions of the preliminary impact lines on the north bank are not protected by any reserve, however, no mineral claims appear to have been made. Other than reserves held by the MOTI, BC Hydro is not aware of any tenures issued to 3rd parties for the purposes of aggregate production on Crown land that overlap with the Project Activity Zone and preliminary impact lines.
	TRANSPORTATION			
EAC 35	The EAC Holder must develop a Traffic Management Plan to appropriately manage Project-related traffic in and around work sites during construction in a manner that protects wildlife, maximizes worker and public safety, and manages effects on productivity.	Ongoing	In Compliance	This requirement is addressed in the final Construction Safety Management Plan (CSMP), Section 5.4 Traffic Management Plan. Site-specific Traffic Management Plans and Safety Management Plans are required from contractors, and approved by MOTI. These plans include measures such as coordinating Project Scheduling, Traffic Control Plans, addressing posted speeds, lane widths, hazardous zones, lane closures, public notification, etc. to protect wildlife, maximize safety and manage effects on productivity.
EAC 35	The Traffic Management Plan must be developed by a QEP.	Complete	In Compliance	The Traffic Management Plan is described in Section 5.4 of the CSMP. Section 6.0 of the CSMP lists the QPs who prepared the plan.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 35	The Traffic Management Plan must include at least the following: · Maximize the use of existing access corridors.	Ongoing	In Compliance	The project is maximizing the use of existing access corridors as much as possible. This is currently being done in areas along the Transmission line where existing Right- Of-Way access exists for maintenance and for clearing in the Eastern Reservoir.
EAC 35	· Equip Project vehicles travelling on Project access roads with VHF/UHF communication radios.	Ongoing	In Compliance	All Project vehicles travelling on Project access roads have VHF/UHF communication radios.
EAC 35	· Control and/or restrict access where required, and as discussed with MOTI.	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 35	· Identify access roads to be decommissioned after Project use.	Ongoing	In Compliance	Contractor Traffic Management Plans will identify access roads to be decommissioned. This has included temporary access for clearing, dam site construction, and Hwy 29 realignment.
EAC 35	· Public safety measures.	Ongoing	In Compliance	Public safety measures are addressed in Contractor Traffic Management Plans or Safety Plans, which are reviewed and approved by MOTI. Measures include having Incident Management Plans, Traffic Control Plans, public signage and notification, etc.
EAC 35	· Post speed limits on all construction access roads.	Ongoing	In Compliance	Speed limits are posted throughout the dam site area as well as on all public roadways where construction is taking place. These speed limits are reflective of construction speed zones.
EAC 35	· Work schedules, subject to safety considerations, to minimize delays and nuisance to the public caused by the realignment of Highway 29, particularly during peak visitor periods.	Ongoing	In Compliance	All works on public roadways are subject to Traffic Management Guidelines as provided by MOTI. This includes measures such as maximum delay and work stoppage.
EAC 35	· Inclusion of Traffic Control Plans, Public Information Plans, Incident Plans, and Implementation Plans.	Ongoing	In Compliance	These topics are included in site-specific Contractor Traffic Management Plans.
EAC 35	The Traffic Management Plan must also establish measures for identifying and mitigating effects on local transportation infrastructure resulting from Project activities.	Ongoing	In Compliance	The Traffic Management Plans include a pavement management program. MOTI conducts pavement condition monitoring surveys in the region once every two years travelling in one direction on main roads. BC Hydro has increased the requirement to survey both directions on main roads every two years for all project

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				affected roads. This includes 240 Rd, 269 Rd, 271 Rd, Jackfish Lake Rd, Hwy 97, and Hwy 29.
EAC 35	The Traffic Management Plan must also include at least the following: · Identification of all road modifications, realignments, and improvements on Highway 29 North, Highway 29 South, Jackfish Lake Road, and North Bank Minor Roads that are required to ensure access is maintained and service levels meet the appropriate MOTI standards.	Complete	In Compliance	All road modifications and improvements on the listed roads require approval from MOTI. MOTI has reviewed and approved design standards for 271 Rd, and the segments of Highway 29 that are to be realigned (e.g., at Cache Creek, Halfway River, Farrell Creek, Dry Creek and Lynx Creek).
EAC 35	· Construction of a paved brake-check before the start of the 10% grade on Canyon Drive west of Hudson's Hope and make it a mandatory requirement for Project-related trucks to stop and check vehicle brakes.	Complete	In Compliance	Construction of a paved brake-check was completed in September 2015.
EAC 35	· In consultation with MOTI, identify any additional measures that may be required for public safety (signage, signals, illumination, monitoring etc.)	Ongoing	In Compliance	BC Hydro worked with MOTI to identify any additional required measures that may be required for public safety. Additional measures may be identified in the future based on feedback from MOTI.
EAC 35	· Follow best management practices as outlined in Traffic Management Guidelines for Work on Roadways (BC Ministry of Transportation 2001 and as amended from time to time).	Ongoing	In Compliance	BMPs are written into contracts and being followed for all works on public roadways.
EAC 35	The EAC Holder must provide this draft Traffic Management Plan to MOTI, Peace River Regional District, City of Fort St. John, District of Hudson's Hope, District of Chetwynd and Saulteau, West Moberly, Halfway River, Doig River, Blueberry River	Complete	In Compliance	The Draft Traffic Management Plan is described in Section 5.4 of the CSMP. The draft CSMP was submitted to the required recipients on October 17, 2014.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	and Prophet River First Nations, and McLeod Lake Indian Band for review 90 days prior to the commencement of construction.			
EAC 35	The EAC Holder must file the final Traffic Management Plan with EAO, MOTI, Peace River Regional District, City of Fort St. John, District of Hudson's Hope, Chetwynd and Saulteau, West Moberly, Halfway River, Doig River, Blueberry River and Prophet River First Nations, and McLeod Lake Indian Band 30 days prior to the commencement of construction.	Complete	In Compliance	The Draft Traffic Management Plan is described in Section 5.4 of the CSMP. The final CSMP was submitted to the required recipients on June 5, 2015.
EAC 35	The EAC Holder must develop, implement and adhere to the final Traffic Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Site-specific Traffic Management Plans and Safety Management Plans are required from contractors, and approved by MOTI. These plans include measures such as coordinating Project Scheduling, Traffic Control Plans, addressing posted speeds, lane widths, hazardous zones, lane closures, and public notification, etc. to protect wildlife, maximize safety and manage effects on productivity. Revision 2 to the CSMP was issued in March 2017. Revision 2 of the CSMP contains updates to Section 5.2.12 Traffic Monitoring and Appendix C, section 2.1 and 2.4.
EAC 36	The EAC Holder must develop and implement a carpool and commuter program as part of the Traffic Management Plan.	Ongoing	In Compliance	The carpool and commuter program is described in Appendix C of the CSMP, Appendix C – Commuter and Carpool Plan and is being implemented as planned. Preferred carpool parking is designated in the main site parking lot.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 36	The EAC Holder will provide a shuttle service for workers between Chetwynd and the Site C dam site if warranted by demand or restrictions on access for private vehicles to the dam site.	Ongoing	In Compliance	Potential carpool coordination websites for works were posted on the public Site C website in the fall of 2015. Please see: https://www.sitecproject.com/job-opportunities/why-work-here A requirement for a shuttle service if warranted by demand or restrictions for workers between Chetwynd and the Site C dam site was placed in the GSS and MCW contracts. The Contractors will monitor demand from their workforce. There are no restrictions on access for private vehicles to the dam site gates.
EAC 36	The EAC Holder must consult with the affected local communities, including Aboriginal communities in the development of a carpool and commuter program.	Complete	In Compliance	The draft and final CSMPs were submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014 and June 5, 2015, respectively.
EAC 37	The EAC Holder must develop a Transportation Monitoring and Follow-up Plan to ensure measures to mitigate Project effects on local transportation infrastructure are effective or need to be adjusted to adequately mitigate the effects.	Complete	In Compliance	The requirements of Condition 37 are addressed in Sections 5.4.10, Section 5.4.12, and Appendix B of the CSMP.
EAC 37	The Transportation Monitoring and Follow-up Plan must be developed by a QEP.	Complete	In Compliance	The Transportation Monitoring and Follow-up Plan is described in Sections 5.4.10, Section 5.4.12, and Appendix B of the CSMP. Section 6.0 of the CSMP lists the QPs who prepared the plan. Appendix B Traffic Monitoring and Mitigation Plan - Fort St. John and North Bank Area Roads was developed in consultation with the City of Fort St. John staff.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 37	The Transportation Monitoring and Follow-up Plan must include at least the following: · On an annual basis during construction and during each year when Project traffic will be using each identified intersection, traffic counts and monitoring of traffic operations at the following intersections: - Beattie Drive in Hudson's Hope - Clarke Avenue in Hudson's Hope - Highway 29 and Canyon Drive in Hudson's Hope - Highway 29 and Jackfish Lake Rd - Highway 97 / Highway 29 in Chetwynd - Highway 97 intersections in Fort St. John, including: ▪ Highway 97 at Old Fort Road in Fort St. John ▪ Highway 97 at 100th Street in Fort St. John ▪ Highway 97 at 85th Avenue in Fort St. John	Ongoing	In Compliance	Intersection monitoring was carried out annually in Year 4 of construction with quarterly monitoring of the dam site entrances. The Traffic and Pavement Monitoring report for the fourth year of construction was submitted to regulatory agencies and local governments on January 22, 2020. The next annual monitoring data collection will occur in April - May 2020.
EAC 37	· Annual monitoring during construction of traffic operations on local roads to determine if road restrictions for Project-related traffic should be implemented, in accordance with appropriate MOTI standards.	Ongoing	In Compliance	Intersection monitoring was carried out annually in Year 4 of construction with quarterly monitoring of the dam site entrances. The Traffic and Pavement Monitoring report for the fourth year of construction was submitted to regulatory agencies and local governments on January 22, 2020. The next annual monitoring data collection will occur in April - May 2020.
EAC 37	As part of the Transportation Monitoring and Follow-up Plan, the EAC Holder must implement the following 90 days prior to commencement of operations: · Illumination of continuous lightning along Highway 97 through Taylor, from Birch Avenue west to 100th Street access at	Complete	In Compliance	Continuous lighting was installed in 2015 and is operating in Taylor along Highway 97in accordance with this requirement.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	McMahon Drive, and intersection lightning at Highway 97 and Pine Avenue, 103rd Avenue, and Cherry Avenue			
EAC 37	· Installation of changeable message signs on Highway 97 on the south Taylor Hill and on the hill north of Taylor, to be operated as part of the MOTI network that will provide drivers with advanced notification of road conditions, including notification of fog conditions.	Complete	In Compliance	Changeable message signs were installed in 2015 and are operating on Highway 97 in accordance with this requirement.
EAC 37	· Installation of a highway webcam in Taylor to monitor fog conditions, to be operated as part of the MOTI network. The location will be determined in consultation with Taylor and MOTI.	Complete	In Compliance	The webcam was installed in 2017 as part of MOTI's network and can be accessed on DriveBC.
EAC 37	The Transportation Monitoring and Follow-up Plan reporting must occur at least annually during the monitoring and follow-up program period, beginning 180 days after the commencement of construction.	Ongoing	In Compliance	BC Hydro submitted the Year 4 Traffic and Pavement Monitoring report on January 22, 2020.
EAC 37	The EAC Holder must provide the draft Transportation Monitoring and Follow-up Plan to MOTI, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups for review within 90 days after the commencement of construction.	Complete	In Compliance	The draft Transportation Monitoring and Follow-up Plan, as part of the CSMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014.
EAC 37	The EAC Holder must file the final Transportation Monitoring and Follow-up Plan with EAO, MOTI, Peace River Regional District, City of Fort St. John, District of	Complete	In Compliance	The final CSMP was submitted to regulatory agencies, governments, and Indigenous groups on June 5, 2015.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	Hudson's Hope, District of Chetwynd and Aboriginal Groups within 150 days after the commencement of construction.			
EAC 37	The EAC Holder must develop, implement and adhere to the final Transportation Monitoring and Follow-up Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro submitted the CSMP on June 5, 2015; the most recent revision was submitted on March 22, 2017. The CSMP includes all of the measures in the Transportation Monitoring and Follow-up Plan in section 5.4.10, section 5.4.12, and Appendix B Traffic Monitoring and Mitigation Plan - Fort St. John and North Bank Area Roads. The Traffic and Pavement Monitoring report for the second year of construction was submitted regulators and local communities on January 22, 2020.
EAC 38	The EAC Holder must develop a Public Safety Management Plan to describe how it will implement measures to avoid or manage the effects of the Project on public safety during construction and operations.	Complete	In Compliance	Section 5.3 of the CSMP describes the Public Safety Management Plan (Public Safety Management Plan) as well as planning for future aspects of the project. The Public Safety Management Plan, developed by a QEP, is described in Section 5.3 of the CSMP. The draft and final CSMPs were submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014 and June 5, 2015, respectively. A status update on Condition 37 requirements is provided below. Public Safety Management Plans are key deliverables by all Primes and major contactors at Site C and must be approved before the contractor can mobilize to site.
EAC 38	The Public Safety Management Plan must be developed by a QEP.	Complete	In Compliance	The Public Safety Management Plan is described in Section 5.3 of the CSMP. Section 6.0 of the CSMP lists the QP who prepared the plan.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 38	The Public Safety Management Plan must include at least the following: · Increase public awareness of safety hazards, including navigational hazards, access restrictions and closures during the construction and operation of the Site C reservoir.	Ongoing	In Compliance	The PSMP describes measures to inform public on safety issues during the construction of the Project. In river work zone hazards are well marked for navigation purposes and meet the requirements for river navigation. Public safety signs and beacons have been installed on the north and south banks of the Peace River, upstream and downstream of the dam site, to mark the boundaries of the active construction area. The work site maintains a security perimeter with activity access control, security patrols and signage to inform members of the public. Information about safety is shared publicly using a variety of methods. The biweekly construction bulletin provides information about planned work and safety information for boaters. 26 bulletins were provided in 2019. The quarterly Aboriginal Group construction notification also contains this information. Four letters were provided in 2019. As per the PSMP, Contractor Public Safety Management Plans are provided to Indigenous groups and to local and regional governments. The operations PSMP will be developed prior to reservoir filling.
EAC 38	· Establish boater communication protocol including communication of navigational hazards during construction and operations.	Ongoing	In compliance	Information about safety is shared publicly using a variety of methods, including the bi-weekly construction bulletin and the quarterly construction notification letter which is sent to Indigenous groups, local governments and posted online. Public safety signs and beacons have been installed on the banks of the Peace River to mark the boundaries of the active construction area. Further, BC Hydro will facilitate the distribution of contractor's public safety management plans as and when needed.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 38	· Develop standard navigation mitigations for signals, markings and notifications, relating to overhead structures such as towers and conductors crossing navigable waters.	Ongoing	In Compliance	Standard navigation mitigations for signals, markings and notifications is being undertaken in compliance with Navigation Protection Act and Canadian Navigable Waters Act approvals
EAC 38	· Manage public water-based access during construction and for the first 5 years of operation.	Ongoing	In Compliance	The Diversion Security and Public Safety Plan has been completed. Appendix 2 of this Plan details the public safety signs (including flashing lights) that will be installed in advance of the completion of the upstream debris boom on the Peace River. Additional measures, including buoys and a triggered audible alarm are recommended as additional controls to protect the public associated with Diversion.
EAC 38	The EAC Holder must provide this draft Public Safety Management Plan to MOTI, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Saulteau, West Moberly, Halfway River, Doig River, Blueberry River and Prophet River First Nations, and McLeod Lake Indian Band for review 90 days prior to the commencement of construction and operations.	Complete	In Compliance	The draft CSMP (Section 5.3 Public Safety Management Plan) was submitted to regulatory agencies, governments and Indigenous groups on October 7, 2014.
EAC 38	The EAC Holder must file the final Public Safety Management Plan with the MOTI, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Saulteau, West Moberly, Halfway River, Doig River, Blueberry River and Prophet River First Nations, and McLeod Lake Indian Band 30 days prior to the commencement of construction and operations.	Complete	In Compliance	The final CSMP (Section 5.3 Public Safety Management Plan) was submitted to regulatory agencies, governments and Indigenous groups on June 5, 2015.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 38	The EAC Holder must develop, implement and adhere to the final Public Safety Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	During the fall of 2019 (and all of 2020 to date) public safety activities have focused on developing a comprehensive Security and Public Safety Plan for Diversion. This Plan identifies the security and public safety risks associated with Diversion. Based on these risks, a program (scope, schedule and budget) to mitigate those risks through signage, warning buoys, security patrols and electronic detection and alarms. Currently this plan is being refined and estimates obtained for implementation. Many of the control measures will be implemented prior to June 2020 when the BC Hydro debris boom will be installed on the Peace River upstream of the project.
	OUTDOOR RECREATION AND TOURISM			
EAC 39	The EAC Holder must provide information to the Province of Alberta, during construction and operations, to assist in their communications with anglers in Alberta regarding changes in downstream fishing opportunities due to construction activities and longer-term changes in fish community composition.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro will provide information regarding changes in downstream fishing opportunities on to the Province of Alberta on an annual basis, commencing when information from the FAHMFP becomes available.
EAC 40	The EAC Holder must finalize and implement the Outdoor Recreation Mitigation Plan to mitigate changes in recreational opportunities and loss of existing recreational areas resulting from the Project.	Ongoing	In Compliance	BC Hydro submitted the draft Outdoor Recreation Mitigation Plan on July 27, 2016 and submitted the final Outdoor Recreation Mitigation Plan on January 27, 2017 with regulatory agencies, governments and Indigenous group. The Plan describes the timing for when different measures will occur. The timing of specific measures is referenced below.
EAC 40	The Outdoor Recreation Mitigation Plan must be developed by a QEP.	Complete	In Compliance	Section 5.0 of the Outdoor Recreation Management Plan lists the QPs who prepared the plan.
EAC 40	The Outdoor Recreation Mitigation Plan must include at least the following to: · Provide technical information to support outdoor recreation providers in adapting to new shoreline conditions.	Ongoing	In Compliance	Section 2.2.1 of the final Outdoor Recreation Mitigation Plan includes information about the provision of technical information and communications strategies that will be used.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 40	· Establish three new boat launch/day use sites, complete with parking, picnic areas and toilets, at Cache Creek, Lynx Creek and Hudson's Hope Shoreline, and accessible via Highway 29.	Ongoing	In Compliance	Section 2.2.2 of the final Outdoor Recreation Mitigation Plan includes information about the boat launches. The design of three new boat launch and day use sites is ongoing. Road access for boaters and recreation site users from Highway 29 for each of the boat launches is currently in design phase, in coordination with Highway 29 work.
EAC 40	· Establish at least one public viewpoint at the Site C dam site.	Complete	In Compliance	Section 2.2.2 of the final Outdoor Recreation Mitigation Plan includes information about the viewpoint on the north bank. The viewpoint opened to the public in August 2017.
EAC 40	· Provide approximately $150,000 to the District of Hudson Hope for the enhancement of Alwin Holland Park, or other community shoreline recreation areas.	Complete	In Compliance	Section 2.2.2 of the final Outdoor Recreation Mitigation Plan includes information about the payment which was made to Hudson's Hope in 2017.
EAC 40	· Provide approximately $200,000 for a Community Recreation Site Fund of which $50,000 is for recreational sites on the south bank to support development of new shoreline recreation areas within the Peace River and its tributaries to the Alberta border.	Ongoing	In Compliance	Section 2.2.3 of the final Outdoor Recreation Mitigation Plan describes the strategy and implementation plan for the recreation fund. BC Hydro consulted with local governments on the implementation of the fund in in 2018. Implementation of the fund commenced in 2019. A second intake is planned in 2020.
EAC 40	· Outline an approach to governance and allocation of funds from the Community Recreation Site Fund	Ongoing	In Compliance	Section 2.2.3 of the final Outdoor Recreation Mitigation Plan describes the strategy and implementation plan for the recreation fund. BC Hydro consulted with local governments on the implementation of the fund in in 2018. Implementation of the fund commenced in 2019. A second intake is planned in 2020.
EAC 40	· Fund the development of a BC Peace River/Site C Reservoir Navigation and Recreation Opportunities Plan	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. The Outdoor Recreation Mitigation Plan describes the plan in section 2.2.4. A BC Peace River / Site C Reservoir Navigation and Recreation Opportunities Plan will be developed to mitigate potential effects on over the long term on outdoor recreation and tourism infrastructure, as well as access to water-based navigation. The planning process and the plan development will be funded by BC Hydro and initiated within one year after reservoir filling.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 40	The EAC Holder must provide this draft Outdoor Recreation Mitigation Plan to FLNR, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Saulteau, West Moberly, Halfway River, Doig River, Blueberry River and Prophet River First Nations, and McLeod Lake Indian Band for review within 12 months after the commencement of construction.	Complete	In Compliance	BC Hydro submitted the draft Outdoor Recreation Mitigation Plan on July 27, 2016 to regulatory agencies, governments and Indigenous groups.
EAC 40	The EAC Holder must file the final Outdoor Recreation Mitigation Plan with EAO, FLNR, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Saulteau, West Moberly, Halfway River, Doig River, Blueberry River and Prophet River First Nations, and McLeod Lake Indian Band within 18 months after the commencement of construction.	Complete	In Compliance	BC Hydro submitted the final Outdoor Recreation Mitigation Plan on January 27, 2017 to regulatory agencies, governments and Indigenous groups.
EAC 40	The EAC Holder must develop, implement and adhere to the final Outdoor Recreation Mitigation Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Implementation of the measures as described in the final Outdoor Recreation Mitigation Plan is underway.
EAC 41	The EAC Holder must make reasonable efforts to enter into agreements with the owners of the campground at Cache Creek and the hunting camp near the Site C dam site to compensate for any effects to those facilities, prior to potential effects on operation of these facilities.	Ongoing	In Compliance	Due to the realignment of the Highway design, BC Hydro has entered into a new agreement with the owner of the campground at Cache Creek. This agreement transferred the land to BC Hydro in return for compensation. Further discussions regarding the effects of the project on the campground facility are ongoing. BC Hydro has entered into an agreement with the operator of the hunt camp near Site C. This agreement compensated the operator for the effects on the facility and the cost to replace and/or relocate the physical infrastructure. It is not known if the operator has reinstated the hunt camp at an alternative location.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 41	Where it is both physically and economically feasible, the costs to relocate facilities will be included in the agreements.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition
	COMMUNITY			
	Community Infrastructure and Services			
EAC 42	The EAC Holder must manage increased demands resulting from the influx of the Project workforce on community health care and social services by implementing mitigation measures detailed in a Healthcare Services Plan.	Ongoing	In Compliance	The final Health Care Services Plan was submitted on June 5, 2015. Implementation of the measures in the Plan are underway.
EAC 42	The Healthcare Services Plan must include at least the following: · Implement on-site health care comprised of physician and nursing services to manage non-urgent health issues for the workforce residing in the construction camps.	Ongoing	In Compliance	Section 6.1 of the final Health Care Services Plan describes the on-site health care. The on-site Project Health Clinic opened on March 1, 2016 staffed with a nurse practitioner and advanced care paramedic. BC Hydro provides quarterly data reports to Northern Health on the Project Health Clinic's activities.
EAC 42	· Establish a process for coordination of program delivery with the Northern Health Authority (NHA).	Complete	In Compliance	Project Health Clinic staff have been in contact with Northern Health Authority (NHA) contacts provided by Northern Health to coordinate programs delivered through the clinic. BC Hydro provides a quarterly report to Northern Health on use of the Project Health Clinic. BC Hydro and Health Clinic staff also hosted a tour and meeting with Northern Health staff, members of the local Division of Family Practice, WorkSafe BC and BC Ambulance on October 30, 2017.
EAC 42	· Establish a process for providing new resident workers and their families with local information about health, education and social services.	Complete	In Compliance	Links to information about health, education and social services for each community in the Peace were posted on the public Site C website in fall 2015 to share with new residents and potential new residents. This information is reviewed and updated as needed.
EAC 42	The EAC Holder must provide this draft Healthcare Services Plan to NHA, Peace River Regional District, City of Fort St. John and District of Hudson's Hope for review a	Complete	In Compliance	The draft Health Care Services Plan was submitted to NHA and governments on October 17, 2014.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	minimum of 90 days prior to the commencement of construction.			
EAC 42	The EAC Holder must file the final Healthcare Services Plan with the NHA, Peace River Regional District, City of Fort St. John and the District of Hudson's Hope a minimum of 30 days prior to the commencement of construction.	Complete	In Compliance	The final Health Care Services Plan was submitted to NHA and governments on June 5, 2015.
EAC 42	The EAC Holder must develop, implement and adhere to the final Healthcare Services Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The final Health Care Services Plan was submitted on June 5, 2015. Implementation of the measures in the Plan are underway. The Project Health Clinic opened on March 1, 2016. BC Hydro held a Joint Health Care Services meeting on November 29, 2019 with Northern Health, WorkSafe BC and physicians from the local Division of Family Practice.
EAC 43	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)	Ongoing	In Compliance	Additional 3rd party sources have been resourced to conduct auditing of our current emergency response systems including our main Prime Contractors programs. The audits included verification that NFPA (national) standards and provincial (BC) fire code standards are being met in all areas. Auditing also determined availability and readiness of emergency responders including those located directly at Site C, and for the response of the local Fort St John, BC fire department. As an example, response times for the FSJ Fire Departments arrival to an emergency situation was under 15 minutes to Site C.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 43	· Communicate Project emergency management plans to all emergency service providers, and provide updates as plans are amended	Ongoing	In Compliance	The EAC is currently under review and updating as conditions change during the Site C construction phase. As the Fort St John fire department has contracts with two of our Prime Contractors, at minimum, monthly visits take place to allow the external emergency responders to review/observe the work locations and to develop 'safe operating procedures' for fire or rescue response. We have developed a Diversion Project Plan – Emergency Response Plan (ERP) that is specific to diversion. The Emergency Planning Guide, which is a document available to external response agencies has been updated and presented to the local communities. A tabletop exercise with the downstream response agencies is planned for June and will run through an emergency scenario involving a failure of the Stage 2 Cofferdam.
EAC 43	· Develop site access protocols to enable safe site access during construction and communicate to emergency service providers 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.	Ongoing	In Compliance	BC Hydro continues to work 'hand-in-hand' with the local authorities to ensure quick and efficient access to the Site C construction zone. The BC Hydro on-site security manager meets regularly with the local RCMP and perimeter security Contractor to discuss current and potential upcoming issues that may need additional planning or focus.
EAC 43	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.	Complete	In Compliance	The draft Emergency Services Plan was submitted to local emergency services providers, and governments on October 17, 2014.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 43	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.	Complete	In Compliance	The final Emergency Services Plan was submitted to local emergency services providers, and governments on June 5, 2015.
EAC 43	The EAC Holder must develop, implement and adhere to the final Emergency Services Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Additional training is being scheduled in 2020 to cover all aspects of the EAP and which will include the Incident Command System courses. BC Hydro staff and our senior Contractor management teams will attend all training and will include a table-top exercise. All Prime Contractors are responsible for any emergency in their own geological footprint. Should the Prime Contractor require assistance, or should the emergency involve more than 1 Prime Contractor, BC Hydro senior management will take the senior role in managing the emergency to its conclusion.
EAC 44	The EAC Holder must assist School Districts 59 and 60 to adjust to potential increased need resulting from the influx of the Project workforce by providing annual information throughout construction about anticipated changes in the resident population and potential new school enrolment.	Ongoing	In Compliance	BC Hydro provided this information on the Project workforce to School Districts 59 and 60 on July 26, 2019. BC Hydro will provide updated information in July 2020.
EAC 45	The EAC Holder must assist the Northern Lights College to adjust to potential increased need resulting from the influx of the Project workforce by providing information annually during construction to identify the number of worker hires.	Ongoing	In Compliance	Site C Contractors are contractually required to report on their work force monthly. BC Hydro has provided this information in "The Summary of the Site C Workforce - Annual report (Total worker, Temporary Foreign Workers and Difficult to Hire Positions)" that was provided to the Northern Lights College and School District 59 and 60 on July 26th, 2019. The next report will be issued in July 2020. Monthly project consolidated workforce numbers are also posted monthly on the Site C Website.
EAC 46	The EAC Holder must develop a Waste Management Plan.	Complete	In Compliance	The Waste Management Plan is described in Section 4.16 of the CEMP for the Project.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 46	The Waste Management Plan must be developed by a QEP.	Complete	In Compliance	The Waste Management Plan is described in Section 4.16 of the CEMP. Section 6.0 of the CEMP lists the QPs who prepared the plan.
EAC 46	The Waste Management Plan must include at least the following: · Identify waste management strategies to manage effects on landfills in the region.	Ongoing	In Compliance	Section 4.16 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 46	· Develop methods for disposal of project-related waste.	Ongoing	In Compliance	Section 4.16 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 46	· Ensure capacity of local landfills to meet disposal requirements of the Project construction activities	Ongoing	In Compliance	BC Hydro has been in communications with local landfills about operations. Landfill operators have not to date expressed concerns about waste streams from the Project negatively affecting landfill capacity.
EAC 46	· Establish resources and funding arrangements to address any potential shortfall in existing landfill capacity.	Ongoing	In Compliance	Operators of the Regional District Landfill have not expressed concern over landfill capacity resulting from increased waste flows from the Site C Project.
EAC 46	· Identify other waste management options through consultation with the Peace River Regional District/municipal agencies responsible for management of solid waste in the area.	Ongoing	In Compliance	All contractors onsite manage a waste stream that is segregated as per the available waste programs in the area. BC Hydro consulted with Peace River Regional District in 2018 and did not identify any additional waste management practices that BC Hydro needs to pursue.
EAC 46	The EAC Holder must provide the Waste Management Plan to the MOE, Peace River Regional District, City of Fort St. John and the District of Hudson's Hope for review a minimum of 90 days prior to the commencement of construction activities.	Complete	In Compliance	The Waste Management Plan is described in Section 4.16 of the CEMP for the Project. The Draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 46	The EAC Holder must file the final Waste Management Plan with the EAO, MOE, Peace River Regional District, City of Fort St. John and the District of Hudson's Hope a minimum of 30 days prior to the commencement of construction activities.	Complete	In Compliance	The final (Revision 1) of the CEMP was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. Revision 2 of the CEMP was issued in February 2016 and Revision 4 in July 2016 (Revision 3 was not formally published). Revision 5 was issued on February 19, 2019, Revision 5.1 on April 19, 2019 Revision 6 on July 15, 2019 and Revision 6.1 on December 12, 2019.
EAC 46	The EAC Holder must develop, implement and adhere to the final Waste Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Section 4.16 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 47	The EAC Holder must mitigate actual effects on the functionality of local water and sewage systems by implementing measures detailed in a Local Infrastructure Mitigation Plan.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro established mitigation and/or monitoring programs with the District of Hudson's Hope, City of Fort St. John and the District of Taylor for their water and sewage systems as appropriate, in their community agreements. BC Hydro is working with the PRRD to establish a similar agreement. BC Hydro will submit the draft Local Infrastructure Mitigation Plan to governments and Indigenous groups, a minimum of 360 days prior to reservoir filling. BC Hydro will submit the final Local Infrastructure Mitigation Plan to the EAO, governments and Indigenous groups, a minimum of 30 days prior to reservoir filling.
EAC 47	The Local Infrastructure Mitigation Plan must include at least the following: A strategy for ongoing communication with local municipalities. · Specific mitigation measures (system relocation, replacement, monitoring) that may be required to ensure the functionality of existing municipal water and sewer systems.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 47	· Identification of resources and funding arrangements associated with specific mitigation measures that may be required to ensure functionality of existing municipal water and sewer systems.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition
EAC 47	The EAC Holder must provide this draft Local Infrastructure Mitigation Plan to the Peace River Regional District, City of Fort St. John, District of Hudson's Hope, District of Taylor, and Aboriginal Groups for review a minimum of 360 days prior to reservoir filling.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 47	The EAC Holder must file the final Local Infrastructure Mitigation Plan with EAO, Peace River Regional District, City of Fort St. John, District of Hudson's Hope, District of Taylor, and Aboriginal Groups a minimum of 30 days prior to reservoir filling.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 47	The EAC Holder must develop, implement and adhere to the final Local Infrastructure Mitigation Plan, and any amendments, to the satisfaction of EAO.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition
	Housing			
EAC 48	The EAC Holder must manage the increased demands for housing in the City of Fort St. John, resulting from the influx of the Project workforce by implementing mitigation measures detailed in a Housing Plan.	Ongoing	In Compliance	The Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 was submitted in December 2016. The implementation of the measures in the Plan is underway. The construction of the 50 rental units of housing is complete. BC Hydro is currently renting 25 units and the other units are being administered by BC Housing.
EAC 48	The Housing Plan must include at least the following: · Establish a community camp co-coordinator.	Ongoing	In Compliance	The coordinator identified and posted logistical information on the public Site C website to support workers consideration of moving to a local community. This information is reviewed and updated regularly.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 48	· Establish a process for adjusting camp capacity throughout the construction phase to accommodate direct Project workers.	Complete	In Compliance	The Housing Plan and Housing Monitoring and Follow-up Program Revision 2 describes in section 5.2 how the camp was structured to allow the accommodation of direct Project workers. BC Hydro has constructed the Two Rivers Lodge (Lodge) at the dam site worker accommodation camp to meet anticipated demand for camp housing at the dam site location for the Project workforce. The first beds in the Lodge opened on February 29, 2016 with the last beds opening on September 1, 2016 for a total of approximately 1,600 beds. The camp is planned and contracted to allow additional phased units to be added to meet the on-site housing needs of the workforce through the course of the Project construction if needed.
EAC 48	· Expand affordable rental housing supply in the City of Fort St. John by building 50 rental units to be owned and operated by BC Housing or an approved non-profit operator. Immediately on completion of the housing development, 40 of the rental units will be available for BC Hydro worker housing and 10 will be available to low to moderate income households. Upon completion of the Site C construction phase, the 40 worker housing units will be made available to low to moderate income households.	Ongoing	In Compliance	Section 5.3 of the Housing Plan and Housing Monitoring and Follow-up Program describes the plan to build the additional rental units. BC Hydro completed a contract with BC Housing on July 19, 2016. BC Housing issued a request for proposal in December 2016 for a design-build team for the Project. The construction of the 50 rental units of housing is complete. BC Hydro is renting 25 of the units and the other units are being administered by BC Housing.
EAC 48	· Expand RV accommodation by building 20 new temporary long-stay RV accommodations.	Complete	In Compliance	Section 5.4 of the Housing Plan and Housing Monitoring and Follow-up Program describes the plan to build the long-stay RV accommodations. The RV spaces at Peace Island Park operated by the District of Taylor have been completed. Taylor opened the spaces to the public in early summer 2018.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 48	· Provide approximately $250,000 to emergency or transitional housing providers in the City of Fort St. John.	Complete	In Compliance	To date, BC Hydro has provided the following funding for emergency and transitional housing programs in Fort St. John: $25,000 contribution to Skye's Place in September 2015 to support transitional housing; $25,000 contribution to Meaope Transition House in September 2015 to support transitional housing; and $200,000 contribution to Salvation Army in November 2016 to support emergency housing.
EAC 48	· Monitor net migration to reserves as a result of the Project.	Ongoing	In Compliance	The Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 describes how monitoring net migration to reserves is completed in section 7.2. The report for 2017 was submitted in May 2018. The report for 2019 will be submitted in May 2020.
EAC 48	The EAC Holder must provide this draft Housing Plan to the City of Fort St. John, and Aboriginal Groups for review a minimum of 90 days prior to the construction of housing.	Complete	In Compliance	The draft Housing Plan and Housing Monitoring and Follow-Up Program, was submitted to the City of Fort St. John and Indigenous groups on April 7, 2015.
EAC 48	The EAC Holder must file the final Housing Plan with the EAO, the City of Fort St. John and Aboriginal Groups a minimum of 30 days prior to the construction of housing.	Complete	In Compliance	The final Housing Plan and Housing Monitoring and Follow-Up Program, was submitted to the EAO, the City of Fort St. John and Indigenous groups on June 5, 2015. Revision 2 of the final plan was submitted on December 12, 2016.
EAC 48	The EAC Holder must develop, implement and adhere to the final Housing Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 was submitted in December 2016. The Housing Plan Rental Apartments Monitoring Report - 2019 was submitted to the City and BC Housing on January 22, 2020. The First Nations Net Migration report for 2019 will be submitted in May 2020.
EAC 49	The EAC Holder must ensure that measures implemented under the Housing Plan are effective in mitigating increased demands for housing in the City of Fort St. John by developing and implementing a Housing Monitoring and Follow-up Program for the construction phase.	Ongoing	In Compliance	The Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 was submitted in December 2016. The Housing Plan Rental Apartments Monitoring Report - 2019 was submitted to the City and BC Housing on January 22, 2020. The First Nations Net Migration report for 2019 will be submitted in May 2020. BC Hydro meets with the City of Fort St. John several times a year to discuss any topics of interest to the City as well as implementation of conditions.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 49	The Housing Monitoring and Follow-up Program must include at least the following to ensure measures to mitigate Project effects are effective or need to be adjusted to adequately mitigate the effects: · The EAC Holder must develop an approach for monitoring the apartment rental vacancy rate and price as published by the CMHC semi-annually, for the Fort St. John area and must define the nature and duration of market changes that may require additional mitigation.	Complete	In Compliance	The Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 describes monitoring of the apartment rental vacancy rate and price as published by the Canada Mortgage and Housing Corporation (CMHC) and defines the nature and duration of market changes that may require additional mitigation.
EAC 49	The EAC Holder will review the monitoring results with the City of Fort St. John and discuss if additional mitigation is required and mitigation options.	Ongoing	In Compliance	The Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 was submitted in December 2016. The Housing Plan Rental Apartments Monitoring Report - 2019 was submitted to the City and BC Housing on January 22, 2020. The First Nations Net Migration report for 2019 will be submitted in May 2020. BC Hydro meets with the City of Fort St. John several times a year to discuss any topics of interest to the City as well as implementation of conditions. The most recent meeting was on November 26, 2019.
EAC 49	· Reports must be provided semi-annually during construction to BC Housing and City of Fort St. John, beginning 180 days following the commencement of construction.	Ongoing	In Compliance	BC Hydro submitted the Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 on December 12, 2016 which reflects the change by CMHC from semi-annual reporting to annual reporting. The monitoring was updated to reflect only fall monitoring but the threshold to consider mitigation was lowered from two reporting cycles to one to off-set this change. BC Hydro discussed the change with the City prior to submitting the revised Plan.
EAC 49	· The EAC Holder must work with Aboriginal communities in the LAA (as defined in EIS) to track net migration to reserves attributable to Project effects, on rental market conditions in the City of Fort	Ongoing	In Compliance	The Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 describes how monitoring net migration to reserves is completed in section 7.2. The report for 2018 was submitted in May 2019. The report for 2019 will be submitted in May 2020. BC Hydro has requested Indigenous communities

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	St. John and to identify if additional mitigation is needed.			to provide information they would like included in the report for 2019.
EAC 49	The EAC Holder must provide this draft Housing Monitoring and Follow-up Program to the City of Fort St. John and Aboriginal Groups for review within 90 days after the commencement of construction.	Complete	In Compliance	The draft Housing Plan and Housing Monitoring and Follow-Up Program was submitted to the City of Fort St. John and Indigenous groups on April 7, 2015.
EAC 49	The EAC Holder must file the final Housing Monitoring and Follow-up Program with EAO, City of Fort St. John and Aboriginal Groups within 150 days following the commencement of construction.	Complete	In Compliance	The final Housing Plan and Housing Monitoring and Follow-Up Program, was submitted to the EAO, the City of Fort St. John and Indigenous groups on June 5, 2015. BC Hydro submitted Revision 2 of the Housing Plan and Housing Monitoring and Follow-Up Program on Dec 12, 2016. The Plan was updated due to CMHC eliminating its spring data collection period. As such, the revised plan includes monitoring once a year, but the threshold when mitigation would be explored was reduced to one monitoring cycle to maintain the same time frame (12 months).
EAC 49	The EAC Holder must develop, implement and adhere to the final Housing Monitoring and Follow-up Program, any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro submitted the Housing Plan and Housing Monitoring and Follow-up Program Rev. 2 on December 12, 2016 which reflects the change by CMHC from semi-annual reporting to annual reporting. The monitoring was updated to reflect only fall monitoring but the threshold to consider mitigation was lowered from two reporting cycles to one to off-set this change.
	Regional Economic Development			
EAC 50	The EAC Holder must provide a one-time contribution of $160,000 to the District of Hudson‘s Hope within one year of reservoir filling to address permanent inundation of land no longer available for development.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro will provide a one- time contribution to the District of Hudson‘s Hope within one year of reservoir filling to address permanent inundation of land no longer available for funding.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 51	The EAC Holder must develop and implement a Business Participation Plan (Plan).	Ongoing	In Compliance	The Site C Project continued to maintain an active business directory, with approximately 1,700 businesses registered. This business directory is shared with major contractors, including PRHP, ATCO and AFDE. BC Hydro also uses the business directory for internal requirements. Information about BC Hydro-issued public procurement opportunities are posted to BCBid, on the Site C website (where appropriate) and emailed to the Site C business directory. In this period, 14 emails were sent to the business directory and information on major procurements are provided to local and regional governments and local and provincial business association stakeholders. Other activities include: The Site C procurement forecast, including regularly- updated major procurement/contract fact sheets, is available on the Site C website. BC Hydro responded to enquiries related to business opportunities in this period, providing information and linking businesses to relevant opportunities with BC Hydro and the Site C contractors. BC Hydro is an active member of several local and regional Chamber organizations (e.g. Fort St. John, Chetwynd), attending meetings and providing presentations as appropriate. This satisfies the requirement to build relationships and increase awareness in the region. As part of ongoing community relations, BC Hydro will continue to meet with local economic development offices and business organizations to provide up-to-date information on business opportunities with the Site C project. Site C's major contractors have also led several procurements through their own internal systems and maintain active vendors lists. BC Hydro provides information to businesses.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 51	The Plan must include at least the following: · Increase awareness in the business community about Project procurement opportunities.	Ongoing	In Compliance	The Site C Project continued to maintain an active business directory, with approximately 1,700 businesses registered. This business directory is shared with major contractors, including PRHP, ATCO and AFDE. BC Hydro also uses the business directory for internal requirements. Information about BC Hydro-issued public procurement opportunities are posted to BCBid, on the Site C website (where appropriate) and emailed to the Site C business directory. In this period, 14 emails were sent to the business directory and information on major procurements are provided to local and regional governments and local and provincial business association stakeholders. Other activities include: The Site C procurement forecast, including regularly updated major procurement/contract fact sheets, is available on the Site C website. BC Hydro responded to enquiries related to business opportunities in this period, providing information and linking businesses to relevant opportunities with BC Hydro and the Site C contractors. BC Hydro is an active member of several local and regional Chamber organizations (e.g. Fort St. John, Chetwynd), attending meetings and providing presentations as appropriate. This satisfies the requirement to build relationships and increase awareness in the region. As part of ongoing community relations, BC Hydro will continue to meet with local economic development offices and business organizations to provide up-to-date information on business opportunities with the Site C project. Site C's major contractors have also led several procurements through their own internal systems and maintain active vendor's lists. BC Hydro provides information to businesses

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 51	· Develop partnerships with local business organizations and economic development offices and programs to communicate and maximize opportunities for local businesses.	Ongoing	In Compliance	The Site C Project continued to maintain an active business directory, with approximately 1,700 businesses registered. This business directory is shared with major contractors, including PRHP, ATCO and AFDE. BC Hydro also uses the business directory for internal requirements. Information about BC Hydro-issued public procurement opportunities are posted to BCBid, on the Site C website (where appropriate) and emailed to the Site C business directory. In this period, 14 emails were sent to the business directory and information on major procurements are provided to local and regional governments and local and provincial business association stakeholders. Other activities include: The Site C procurement forecast, including regularly- updated major procurement/contract fact sheets, is available on the Site C website. BC Hydro responded to enquiries related to business opportunities in this period, providing information and linking businesses to relevant opportunities with BC Hydro and the Site C contractors. BC Hydro is an active member of several local and regional Chamber organizations (e.g. Fort St. John, Chetwynd), attending meetings and providing presentations as appropriate. This satisfies the requirement to build relationships and increase awareness in the region. As part of ongoing community relations, BC Hydro will continue to meet with local economic development offices and business organizations to provide up-to-date information on business opportunities with the Site C project. Site C's major contractors have also led several procurements through their own internal systems and maintain active vendor's lists. BC Hydro provides information to businesses

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 51	The EAC Holder must provide this draft Plan to the City of Fort St. John, District of Hudson Hope, District of Taylor and Peace River Regional District for review 90 days prior to the commencement of construction.	Complete	In Compliance	The draft Business Participation Plan was submitted to regulatory agencies and governments on October 7, 2014.
EAC 51	The EAC Holder must file the Final Plan with EAO, City of Fort St. John, District of Hudson's Hope, District of Taylor, and Peace River Regional District a minimum of 30 days prior to the commencement of construction.	Complete	In Compliance	The final Business Participation Plan was submitted to regulatory agencies and governments on June 5, 2015.
EAC 51	The EAC Holder must develop, implement and adhere to the Final Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	As described in the Business Participation Plan (available on the Site C website), BC Hydro will publicly report on business participation activities on an annual basis. The 2018-2019 Annual Report for the Business Participation Plan was made available on the Site C website in July 2010. The 2019-2020 annual report will be available on the Site C website in July 2020.
EAC 52	The EAC Holder must support the North and South Peace non- profit organizations by establishing a community non-profit fund and providing an annual contribution of $100,000 per year to the fund during the construction phase. Organizations that support children and families will be eligible to apply for funding from the community non-profit fund.	Ongoing	In Compliance	BC Hydro worked with local governments and non-profit organizations active in the Peace region to establish the BC Hydro Peace Region Non-Profit Community Fund ("Fund"), now called the BC Hydro Generate Opportunities 'GO Fund". The Fund will support programs provided by non-profit organizations in target communities in the North and South Peace (Chetwynd, Hudson's Hope, Taylor, Fort St. John and PRRD) throughout Project construction. BC Hydro will provide an annual contribution of $100,000 per year to the fund for eight years. BC Hydro established the Regional Decision-making Committee in June 2016. The GO Fund was launched jointly by BC Hydro, Northern Development Initiative Trust (NDIT) and the Committee on September 13, 2016. All information is available on the website: https://www.northerndevelopment.bc.ca/funding-programs/partner-programs/bc-hydro-go-fund/ . Applications will be accepted continuously with four intake reviews

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				(November, February, May, and August).
EAC 53	The EAC Holder must develop and implement a Labour and Training Plan.	Ongoing	In Compliance	The final Labour and Training Plan was submitted to regulatory agencies, governments, Indigenous groups, School Districts 59 and 60, and Northern Lights College on June 5, 2017. The Labour and Training Plan requires an annual report on the Project workforce be submitted to Training institutions on the North. "The Summary of the Site C Workforce - Annual report (Total worker, Temporary Foreign Workers and Difficult to Hire Positions)" was provided to the Northern Lights College and School District 59 and 60 on July 26th, 2019. The next report will be issued in July 2020.
EAC 53	The Labour and Training Plan must include at least the following: · Where labour requirements cannot be met through the local labour pool, develop a strategy for attracting new entrants to the local labour force.	ongoing	In Compliance	BC Hydro has undertaken the following initiatives described in the Plan to date: - Site C contractors continue to participate in regional jobs fairs. - BC Hydro has contractually required Site C Contractors to report on their work force monthly, including reporting on categories of workers that are difficult to hire for the Peace Region labour pool. - Developed and implemented the Indigenous Employment and Information Day. The session is an opportunity for networking between contractors and the training and employment representatives from regional Indigenous communities. Two sessions were held in 2019 - BC Hydro required Site C contractors to post Site C employment opportunities on the WorkBC and Employment Connections websites. BC Hydro has also facilitated contact between new Site C contractors and Employment Connections to ensure Site C Contractors continue to post Site C employment opportunities. BC Hydro monitors compliance with these postings on a regular basis - BC Hydro has contractually required Site C contractors to provide information on the number and job category of foreign workers, management, and supervisors employed in Canada on Project related work. - In September 2017, the Contractors Labour Committee agreed

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				to establish an Indigenous labour subcommittee. The purpose of the subcommittee is to support Indigenous training, labour and employment on Site C through communication, consultation, coordination and cooperation among contractors on the Project - On October 2019, BC Hydro hosted a Site C Employment and Training Information session for local employment agencies and training organizations at Site. This session was an opportunity for local employment and training organizations to connect with Site C Contractors on their current and future employment and training needs. Contractors presented on their current and future employment needs, the scope of their work on the project, the types of worker typically employed and their hiring requirements. The goal of this event was to assist in facilitating training as well as facilitating local employment on the project. The BC Construction Association (BCCA) STEP program, Work BC Chetwynd, Work BC Fort St John (Employment Connections), WorkBC Mackenzie, the Industry Training Authority, and Northern Lights College were all in attendance.
EAC 53	· Resources and funding arrangements with education providers to ensure required training and skill development programs are available.	Ongoing	In Compliance	BC Hydro has undertaken the following initiatives described in the Plan to date: - continued to support trades and skilled training through the BC Hydro Trades and Skilled Training Bursary Awards program through Northern Lights College. As of December 2019, 263 students had received bursaries, including 114 Indigenous students who have benefitted from the bursary in programs such as electrical, welding, millwright, cooking, social work, and many others. The bursary ended in October 2018, with remaining amounts still available. BC Hydro has worked with the Northern Lights College Foundation to extend the bursary and reserve the remaining bursary amounts for local workers with trades programs directly needed for project work. This will be reviewed in October 2020 again. As a part of this agreement, funds were set aside for the BC Hydro and

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				Northern Lights College Pre-Carpentry Skills Pilot Program, Site C - maintained regular contact with relevant Ministry's to update relevant departments with workforce requirements for the Project and provide workforce information.
EAC 53	Participation in regional workforce training initiatives during construction	Ongoing	In Compliance	BC Hydro has maintained on-going contact with training providers/institutions and employment agencies in Northeast British Columbia and facilitated contact between these agencies and Site C contractors. BC Hydro has facilitated connections between PRHP, AFDE and Employment Connections to plan on job fair specifically focused on workers required for upcoming positions at Site. In August 2013, Northern Lights College Foundation started distributing the BC Hydro Trades and Skilled Training Bursary Awards. As of December 2019, 263 students had received bursaries, including 114 Indigenous students who have benefitted from the bursary in programs such as electrical, welding, millwright, cooking, social work, and many others. The bursary ended in October 2018, with remaining amounts still available. BC Hydro has worked with the Northern Lights College Foundation to extend the bursary and reserve the remaining bursary amounts for local workers with trades programs directly needed for project work. This will be reviewed in October 2020 again. As a part of this agreement, funds were set aside for the BC Hydro and Northern Lights College Pre-Carpentry Skills Pilot Program, Site C

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 53	· Identification of apprenticeship opportunities during construction	Ongoing	In Compliance	BC Hydro has undertaken the following initiatives described in the Plan to date: - Required Site C contractors to adhere to the provincial government's policy "Apprentices on Public Projects in British Columbia" which requires identification of apprentices being utilized on the Site C Project. BC Hydro requires Site C contractors contractually to comply with the provincial government policy which requires contractors to demonstrate they are engaged in apprenticeship training and use apprentices on the work site. BC Hydro will be ensuring compliance with the any updated policy as appropriate to applicable contracts - Worked with major Site C contractors to identify apprenticeship and training opportunities for the term of their respective construction contract. BC Hydro has also included broad apprentice targets in the Main Civil Works (MCW) contract. In addition, both the Generating Station and Spillway (GSS) Civil contract and the Transmission lines and the substation contracts have apprentice targets included in them that were developed based on the request of government as outlined above to assist companies to aspire to a 25 per cent or greater target for apprentices. Apprentice target will also be included in the Balance of Plant contract - BC Hydro meets regularly with Site C Contractors via the Contractors Labour Committee. A part of this meeting's agenda includes reviewing workforce requirements and apprenticeship reporting to ensure targets and reporting requirements are met. This also includes determining what support is required for training workers for upcoming project required skills. " - A pre-carpentry skills program was developed in partnership with BC Hydro and Northern Lights College, with funding provided through the BC Hydro Trades and Skilled Training Award Bursary. Funding for this program was also provided through the North East Native Advancing Society (NENAS) and

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				donations from the Construction Maintenance and Allied Workers (CMAW). Further, Site C contractors, PRHP, F&M Installations, and AFDE provided support through job shadows, transportation, and site tours, while ATCO Two Rivers provided material for the class project. - This pilot pre-carpentry program provided Indigenous candidates the opportunity to build the necessary skills to pursue carpentry employment opportunities at Site C. The program included 125 hours of training, job shadowing, safety orientations, as well as an introduction to carpentry skills, workplace numeracy, document use and employment readiness.
EAC 53	· Provision of additional day-care spaces in Fort St. John to increase spousal participation in the labour market.	Complete	In Compliance	Section 6.5 of the Labour and Training Plan submitted on June 5, 2015 describes the approach to providing additional day-care spaces in Fort St. John. In spring 2015, BC Hydro and School District 60 reached an agreement that will create 37 new childcare spaces in the new elementary school in Fort St. John. BC Hydro contributed $1.8 million to School District 60 to build the new childcare centre as part of the new school. School District 60 selected the YMCA of Northern British Columbia as the operator in January 2018. The daycare opened on August 1, 2018.
EAC 53	The EAC Holder must provide this draft Labour and Training Plan to the City of Fort St John, District of Taylor, District of Hudson Hope, Peace River Regional District, Aboriginal Groups, School Districts 59 and 60, and Northern Lights College for review a minimum of 90 days prior to the commencement of construction.	Complete	In Compliance	The draft Labour and Training Plan was submitted to regulatory agencies, governments, Indigenous groups, School Districts 59 and 60, and Northern Lights College on October 17, 2014.
EAC 53	The EAC Holder must file the final Labour and Training Plan with EAO, City of Fort St John, District of Taylor, District of Hudson Hope, Peace River Regional District, Aboriginal Groups, School Districts 59 and	Complete	In Compliance	The final Labour and Training Plan was submitted to regulatory agencies, governments, Indigenous groups, School Districts 59 and 60, and Northern Lights College on June 5, 2017.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	60, and Northern Lights College a minimum of 30 days prior to the commencement of construction.			
EAC 53	The EAC Holder must develop, implement and adhere to the final Labour and Training Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The Summary of the Site C Workforce - Annual report (Total worker, Temporary Foreign Workers and Difficult to Hire Positions) was provided to the Northern Lights College and School District 59 and 60 on July 26th, 2019. The next report will be issued in July 2020.
EAC 54	The EAC Holder must develop an Aboriginal Training and Inclusion Plan.	Complete	In Compliance	The Aboriginal Training and Inclusion Plan (June 2015) is available on the Project website at: https://www.sitecproject.com/sites/default/files/Aboriginal_Training_and_Inclusion_Plan.pdf
EAC 54	The Aboriginal Training and Inclusion Plan must include at least the following: · Description of a protocol and plan for the communication of employment opportunities to Aboriginal groups.	Ongoing	In Compliance	BC Hydro continues to post Site C Project job opportunities on the WorkBC and Employment Connections websites and links to these postings on the Site C Project website. These sites and the hyperlinks are provided as standing information in the bi-weekly information updates sent out by email to Indigenous groups. BC Hydro's Indigenous Employment and Training Program Specialist in Fort St. John continued to actively work with Indigenous communities to highlight the opportunities both on Site C as well as with BC Hydro broadly. BC Hydro held semi-annual Site C employment and training information sessions to share information on employment and training opportunities with Indigenous community employment and training representatives. BC Hydro participated in the work of the Site C Contractors' Indigenous Labour Sub-Committee whose purpose is to support Indigenous training, labour and employment on the Site C Project through communication, consultation, coordination and cooperation among contractors on the Project. During the

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				reporting period the Sub-Committee continued to meet quarterly to discuss initiatives relating to Indigenous employment and training. In 2019 the Sub-Committee focused on training initiatives such as the Site C Pre-Carpentry Program and the ATCO Kitchen Skills and Housekeeping Program with a BC Hydro Career Energizer. Results of these initiatives are described in the Aboriginal Training and Inclusion Plan Annual Report, submitted to the EAO and made available to Indigenous groups through the Project website. Indigenous groups are notified of annual reports through the bi-weekly Site C Information Update emails. The 2018-2019 ATIP Annual Report, describing activities from April 2018 to March 2019 was submitted to the EAO on March 29, 2019. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. During this reporting period, the reported number of Indigenous people working on Site C ranged from 283 to 428.
EAC 54	· Inclusion of evaluation criteria for hiring and training Aboriginal persons in contractor procurement packages.	Ongoing	In Compliance	BC Hydro has included Indigenous participation in the evaluation criteria for the major Site C contracts, including worker accommodation, main civil works, generating station and spillways civil works, transmission line construction, substation construction, generating station and spillways powerhouse bridge and gantry cranes, hydro-mechanical equipment, Peace Canyon 500kV GIS expansion, turbines and generators, and balance of plant.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 54	· Strategies for capacity building, education, and training associated with Aboriginal participation in the labour market, including construction, trades, and other indirect and induced sectors for Aboriginal workers, as these jobs are likely to be longer lived than those related strictly to construction.	Ongoing	In Compliance	BC Hydro has implemented capacity building initiatives that have supported essential skills training, pre-trades and trades training, or increased business capacity in Indigenous businesses. Examples include Indigenous involvement in Site C field programs; Site C tours; Career Energizers with BC Hydro; Driver Training; Construction Safety Training System 09; ATCO Kitchen Skills and Housekeeping Program; Try-a-Trade program; Power System Safety Protection (PSSP), Electro-Fishing Training course; Environmental Monitoring training; and BC Hydro and Northern Lights College pre-carpentry skills pilot program, Site C. BC Hydro will continue to consider proposals from Indigenous groups and training organizations for potential capacity building, education and training opportunities throughout the construction phase of the Project.
EAC 54	· Resources and funding arrangements to support training, industry, and Aboriginal partnership opportunities in the region. Provide $30,000 to the to the Minerva Foundation for three years to support Treaty 8 First Nation women in northeast BC wishing to participate in the Minerva Foundation's Combining Our Strength Initiative ($10,000 provided to date.).	Complete	In Compliance	As of 2017, BC Hydro has fulfilled its commitment of providing $30,000 in funding to Minerva Foundation to support Treaty 8 First Nation women in northeast BC wishing to participate in the Minerva Foundation's Combining Our Strength Initiative. This funding was provided over three years from 2014 to 2017.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 54	This is in addition to funding provided to date to Northern Lights College Foundation ($1 million over five years), Northern Development Opportunities Program ($175,000), Northern Opportunities School District Counsellor ($184,000), NENAS NEATT Program ($100,000) and Oho Education ($16,600).	Ongoing	In Compliance	In 2012, BC Hydro provided $1 million in funding to the Northern Lights College Foundation (NLCF) for the BC Hydro Trades and Skilled Training Bursary Awards. This was to be distributed over a five-year period, ending in August 2018. The purpose of the bursary was to support the development of skilled workers in northeast B.C. and assist students who may not otherwise have access to post-secondary education. Fifty per cent of the funding for bursaries is dedicated to Indigenous students. In August 2013, Northern Lights College Foundation started distributing bursaries. As of December 2019, 263 students had received bursaries, including 114 Indigenous students who have benefitted from the bursary in programs such as electrical, welding, millwright, cooking, social work, and many others. The bursary ended in October 2018, with remaining amounts still available. BC Hydro has worked with the Northern Lights College Foundation to extend the bursary and reserve the remaining bursary amounts for local workers with trades programs directly needed for project work. This will be reviewed in October 2020 again. As a part of this agreement, funds were set aside for the BC Hydro and Northern Lights College Pre-Carpentry Skills Pilot Program, Site C.
EAC 54	· Aboriginal Business Participation Strategy to maximize opportunities for Aboriginal businesses, incorporating at least the following: - Obtaining information from Aboriginal suppliers in the LAA, and from other Aboriginal groups with whom BC Hydro is engaged about the Project, about their business capacity and capabilities to provide goods and services for the Project	Ongoing	In Compliance	BC Hydro supports the advancement of economic opportunities for Indigenous groups, and is working with Indigenous businesses with respect to contracting opportunities on the Project. In addition, BC Hydro's contractors are required to make efforts to provide opportunities for subcontracting, employment and training for Indigenous businesses and individuals, and to report on Indigenous inclusion in the performance of their work. Indigenous businesses have been awarded work on the Site C Project in the following areas: vegetation clearing; site preparation, roads and bridges; highway construction; grass

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				seed supply; wetland mitigation; safety buoys; project health clinic; substation work; environmental monitoring; fish habitat enhancement; civil construction; warehouse construction; erosion and sediment control; quarry development and rip rap production.
EAC 54	- Direct engagement with the local Aboriginal business community, including sponsoring and participating in Aboriginal business events and conferences.	Ongoing	In Compliance	BC Hydro continues to engage the local Indigenous business community through the Site C business directory, job fairs and procurement process support.
EAC 54	- Implementation of BC Hydro's Aboriginal Contract and Procurement Policy.	Ongoing	In Compliance	BC Hydro's procurement and Indigenous Relations staff are available to discuss procurement processes and ways to stay informed about upcoming procurements. BC Hydro works closely with Indigenous communities and businesses to understand their capacity and interest with respect to the Project and identification of potential contracting opportunities.
EAC 54	The EAC Holder must provide this draft Aboriginal Training and Inclusion Plan to Aboriginal Groups for review a minimum of 90 days prior to the commencement of construction.	Complete	In Compliance	The draft Aboriginal Training and Inclusion Plan was submitted to Indigenous groups on October 17, 2014.
EAC 54	The EAC Holder must file the final Aboriginal Training and Inclusion Plan with EAO and Aboriginal Groups a minimum of 30 days prior to construction.	Complete	In Compliance	The final Aboriginal Training and Inclusion Plan was submitted to EAO and Indigenous groups on June 5, 2015.
EAC 54	The EAC Holder must develop, implement and adhere to the final Aboriginal Training and Inclusion Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Results of initiatives conducted under Aboriginal Training and Inclusion Plan (ATIP) are described in annual reports submitted to the EAO and made available to Indigenous groups through the Project website. Indigenous groups are notified of annual reports through the bi-weekly Site C Information Update emails. The 2018- 2019 ATIP Annual Report, describing activities from April 2018 to March 2019 was submitted to the EAO on March 29, 2019. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. BC Hydro will

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				update the ATIP as required based on new information, and will continue to implement initiatives described in the plan throughout construction.
	HUMAN HEALTH			
	Potable and Recreational Water Quality			
EAC 55	The EAC Holder must manage increased demands on community recreational programs and services resulting from the influx of the Project workforce by implementing mitigation measures detailed in a Recreation Program for residents of the work camp, in consultation with the City of Fort St. John.	Ongoing	In Compliance	BC Hydro signed a Community Measures Agreement with the City of Fort St. John on April 22, 2016 which addressed mitigation for camp resident use of City recreational services.
EAC 55	If the recreational services required by residents of the camp extend beyond that provided through in-house (EAC Holder) facilities and programming, the EAC Holder must identify, through consultation with the City of Fort St. John, additional facility and/or programming needs and must provide the resources required to meet those needs.	Ongoing	In Compliance	BC Hydro signed a Community Measures Agreement with the City of Fort St. John on April 22, 2016 which addressed mitigation for camp resident use of City recreational services.
EAC 55	The EAC Holder must develop a draft Recreation Program for review by the City of Fort St. John and the Peace River Regional District a minimum of 90 days prior to the commencement of camp operations.	Complete	In Compliance	The draft Recreation Program was submitted to City of Fort St. John, and PRRD on October 17, 2014.
EAC 55	The EAC Holder must file the final Recreation Program with EAO, City of Fort St. John and Peace River Regional District a minimum of 30 days prior to the commencement of camp operations.	Complete	In Compliance	The final Recreation Program was submitted to EAO, City of Fort St. John, and PRRD on June 5, 2015.
EAC 55	The EAC Holder must develop, implement and adhere to the final Recreation Program,	Ongoing	In Compliance	BC Hydro has made payments to the City in accordance with the Community Measures Agreement for Year 1-5 of the

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	and any amendments, to the satisfaction of EAO.			Project.
EAC 56	The EAC Holder must ensure that wells affected by changes to groundwater levels within 1 km of the reservoir or Peace River continue to function as reliable and safe sources of water for human consumption by monitoring potentially affected wells, with the approval of potentially affected well owners, for significant long-term well quality issues.	Ongoing	In Compliance	BC Hydro commenced monitoring of groundwater in June 2015 at representative water sampling locations selected based on historical well drill logs and spatial proximity to water wells within 1 km of the reservoir. This program was implemented as an alternative to monitoring private wells for which BC Hydro cannot control access, operation, maintenance, or possible contamination. For those willing to participate in the monitoring program, BC Hydro has requested information on wells, and if used for drinking water, requested approval to complete well water testing. An initial field program was conducted in fall 2016, during which time 10 wells were sampled at eight residential properties for baseline water quality analysis. An additional monitoring event was undertaken in spring 2017, during which time 5 wells were sampled for baseline water quality analysis. A renewed effort was made by BC Hydro in summer 2017 to contact owners of registered and non-registered wells. Monitoring in fall 2017 included a total of 16 wells and expanded the program to include well yield testing where feasible. Monitoring in 2018 was conducted in spring (12 wells sampled, and questionnaires completed) and fall (5 wells sampled, 23 questionnaires completed). Monitoring in 2019 was conducted in the spring (9 wells sampled and 21 questionnaires completed) and fall (3 wells sampled and 22 questionnaires completed). Well owners whom BC Hydro was unable to successfully contact to schedule monitoring in advance of planned field programs, or who requested to join the voluntary program after the planned event, are considered for inclusion in future monitoring events.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				Implementation of twice per year monitoring will include contact with drinking water well owners with a brief questionnaire on well operations and any potential changes in water quality. Water quality and well yield testing will be completed on an as- needed basis in private drinking water wells, if potential changes or concerns are identified.
EAC 56	Monitoring must be done twice a year for 10 years, beginning annually from the outset of construction.	Ongoing	In Compliance	Monitoring will continue for a period of 10 years from the date of the initial voluntary sampling event in October 2016.
EAC 56	If any functionality problems such as poor water quality or low yield result from the Project, the EAC Holder must work with the well owner(s) to provide an alternate source of potable water.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. If testing finds issues with water quality or yield caused as a result of the project, BC Hydro will work with the well owner(s) to provide an alternate source of potable water.
	Ambient Air Quality			
EAC 57	The EAC Holder must develop an Air Quality Management Plan and Smoke Management Plan, in compliance with applicable legislation and consistent with the Air Quality Guidelines for the Protection of Human Health and the Environment (CCME 1998), and the British Columbia Air Quality Objectives and Standards (BC Ministry of Environment 2009). The main purpose of the Air Quality Management Plan and Smoke Management Plan is to mitigate the potential human health effects from a degradation of air quality in the region of Fort St. John, Taylor, Hudson's Hope, Chetwynd and for Aboriginal Groups using areas for traditional purposes close to the construction activities of clearing and burning.	Complete	In Compliance	The Smoke Management Plan and Air Quality Monitoring Program are described in Section 4.1 and Appendix A and B, respectively, of the CEMP. The Smoke Management Plan was updated on December 12, 2019 to reflect regulatory changes.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 57	The Air Quality Management Plan and Smoke Management Plan must include at least the following to describe how the EAC Holder: · Identify places of high use by Aboriginal Groups for traditional purposes and develop mitigation measures if adverse effects are predicted at those locations.	Ongoing	In Compliance	With financial support from BC Hydro, several Indigenous groups conducted traditional use studies to document Indigenous use of lands and resources in the Site C project area. Study reports identified areas of high use by Indigenous groups and were submitted to BC Hydro. BC Hydro is monitoring air quality at 4 locations and an additional air quality monitoring station will be installed during construction of the Hudson's Hope Berm. Data completeness target of 75% will be maintained through 2020. Data is shared with the BC Ministry of Environment. Section 4.1 of the CEMP requires Contractors to prepare EPPs that include measures to manage emissions and dust from all project activities. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 57	· Measures to manage emissions and dust from all Project activities.	Ongoing	In Compliance	Section 4.1 of the CEMP requires Contractors to prepare EPPs that include measures to manage emissions and dust from all project activities. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 57	· Measures to manage Project effects on air quality associated with concrete production at concrete batch plants.	Ongoing	In Compliance	Section 4.1 of the CEMP requires Contractors to prepare EPPs that include measures to manage emissions and dust from all project activities. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 57	· Control Project-related smoke by following the most current BC Ministry of Environment Open Burning Smoke Control Regulation.	Ongoing	In Compliance	Section 4.1 and Appendix A of the CEMP refer to the requirement to control Project- related smoke in accordance with the BC Ministry of Environment's Open Burning Smoke Control Regulation. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				environmental audits during construction to verify implementation of EPPs.
EAC 57	· Measures to retain vegetative barriers, or install temporary barriers, where practical.	Ongoing	In Compliance	Section 4.1 of the CEMP requires Contractors to retain vegetative barriers, or install temporary barriers, where practicable. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 57	· Procedures to provide MOE with data collected during monitoring so that they can notify sensitive populations if air quality thresholds are exceeded.	Complete	In Compliance	A MOU agreement was established between BC Hydro and the MOE regarding the housing and publishing of Site C air quality monitoring data on January 7, 2016.
EAC 57	The EAC Holder must monitor air quality associated with shoreline protection works at Hudson's Hope during the construction period and for the first two years of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. Shoreline protection works at Hudson's Hope are planned to commence in 2020 – 2022. Air quality monitoring plans will be implemented during construction and for the first 2 years of reservoir operations.
EAC 57	The EAC Holder must provide these draft Air Quality Management Plan and Smoke Management Plan to MOE, City of Fort St. John, District of Hudson's Hope, Peace River Regional District, District of Taylor, District of Hudson's Hope, District of Chetwynd and Aboriginal Groups for review a minimum of 90 days prior to the commencement of construction activities.	Complete	In Compliance	The Smoke Management Plan and Air Quality Monitoring Program are described in Section 4.1 and Appendix A and B, respectively, of the CEMP. The Draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014
EAC 57	The EAC Holder must file the final Air Quality Management Plan and Smoke Management Plan with EAO, MOE, City of Fort St. John, District of Hudson's Hope, Peace River Regional District, District of Taylor, District of Chetwynd and Aboriginal Groups a minimum of 30 days prior to the commencement of construction activities.	Complete	In Compliance	The final (Revision 1) of the CEMP was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. The Smoke Management Plan was revised in December 2019 to reflect regulatory updates to the Open Burning Smoke Control Regulation. The revised Smoke Management Plan is attached to CEMP Revision 6.1 dated December 12, 2019.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 57	The EAC Holder must develop, implement and adhere to the final Air Quality Management Plan and Smoke Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Appendix A of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
	Noise and Vibration			
EAC 58	The EAC Holder must develop a Noise and Vibration Management Plan to mitigate Project-related noise and vibration effects on human health.	Complete	In Compliance	The Noise and Vibration Management Plan is described in Section 4.11 of the CEMP.
EAC 58	The Noise and Vibration Management Plan must include at least the following: · Program to monitor noise levels associated with construction of Hudson 's Hope Shoreline Protection.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. Shoreline protection works at Hudson's Hope are planned to commence in 2020- 2022, and noise level monitoring will be undertaken during construction.
EAC 58	· Implement notification of construction program and Construction Communication Plan for residents in vicinity of Project activities	Ongoing	In compliance	The Site C project team is implementing the Construction Communication Plan and the Aboriginal Group Communication Plans to ensure that residents, stakeholders and Indigenous groups are provided with advance notification about construction activities. The 2018-2019 Annual Report for the Construction Communications Plan was posted on the Site C website on July 27, 2019. The 2019-2020 Annual Report will be posted in July 2020. Implementation events include: Regional Community Liaison Committee meetings, mail drops, bi-weekly construction updates, First Nations Construction Notification Letter, Stakeholder Construction Notification Letter, Construction Information Sheets posted on the Project website, news releases about key project milestones, site tours, project website, responses to public enquiries, and advertising.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 58	· Retain or erect acoustic barriers, fencing, and vegetative screens as appropriate.	Ongoing	In Compliance	The CEMP Section 4.11 describes the implementation of a noise monitoring program to measure noise levels at sensitive locations near the 85th Avenue Industrial Lands, Highway 29 re-alignment, and Hudson's Hope berm. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 58	· Develop and implement noise monitoring and adaptive management as required.	Ongoing	In Compliance	The CEMP Section 4.11 describes the scheduling of construction activity near homes to reduce periods of disturbance, and the control of construction traffic and deliveries on local roads during night-time hours (22:00-07:00). BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 58	· Mitigate night-time noise (e.g. perimeter berms and acoustic barriers, portable enclosures or barriers to the conveyor hopper, and silent backup alarms)	Ongoing	In Compliance	The CEMP Section 4.11 describes the scheduling of construction activity near homes to reduce periods of disturbance, and the control of construction traffic and deliveries on local roads during night-time hours (22:00-07:00). BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 58	· Monitor noise at 85th Avenue Industrial Lands	Ongoing	In Compliance	The CEMP Section 4.11 describes noise mitigation measures specific to 85th Avenue Industrial Lands. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 58	· Construct perimeter fencing and retain or plant tree screens at 85th Avenue Industrial Lands	Ongoing	In Compliance	The CEMP Section 4.11 describes noise mitigation measures specific to 85th Avenue Industrial Lands. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 58	· Design a work and noise management schedule that allows an uninterrupted eight hour sleep schedule	Complete	In Compliance	The Noise Management Plan included within Worker Accommodation design and operations contract is aligned with the CEMP Section 4.11.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 58	· Manage Project construction noise to provide quiet enjoyment to residents, even if it means temporary relocation of residents at the EAC Holder's expense.	Ongoing	In Compliance	The CEMP Section 4.11 describes noise mitigation measures specific to 85th Avenue Industrial Lands. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction.
EAC 58	The EAC Holder must develop, implement and adhere to the final Noise and Vibration Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Section 4.11 of the CEMP requires that Contractor EPPs address this requirement. BC Hydro audits compliance with this requirement by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 58	The EAC Holder must provide this draft Noise and Vibration Management Plan to FLNR, District of Hudson's Hope, City of Fort St. John, Peace River Regional District and District of Chetwynd for review a minimum of 90 days prior to the commencement of construction activities.	Complete	In Compliance	The Noise and Vibration Management Plan is described in Section 4.11 of the CEMP. The Draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014
EAC 58	The EAC Holder must file the final Noise and Vibration Management Plan with EAO, FLNR, District of Hudson's Hope, City of Fort St. John, Peace River Regional District and District of Chetwynd a minimum of 30 days prior to the commencement of construction activities.	Complete	In Compliance	The final Noise and Vibration Management Plan is described in Section 4.11 of the CEMP. (Revision 1) of the CEMP was provided to regulatory agencies, governments and Indigenous groups on June 5, 2015. Revision 2 of the CEMP was issued in February 2016 and Revision 4 in July 2016 (Revision 3 was not formally published). Revision 5 was issued on February 19, 2019, Revision 5.1 on April 19, 2019 and Revision 6 on July 15, 2019.
EAC 59	The EAC Holder must outline measures including relocation of affected home-owners, as deemed appropriate in consultation with affected home-owners, to address serious levels of noise or changes in air quality during construction of the Project. The measures would be included in the appropriate plans.	Ongoing	In Compliance	Implementation of the Noise and Vibration and Air Quality Management Plans, including review of EPPs, inspections of mitigation measures, and monitoring, is ongoing. A noise and air quality complaint response process has been developed and is being implemented. as per the CEMP
	Methylmercury			

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 60	The EAC Holder must, in collaboration with the First Nations Health Authority (FNHA), NHA and Aboriginal Groups, develop a Methylmercury Monitoring Plan.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. In 2019, BC Hydro engaged with the FNHA, Northern Health Authority and Indigenous groups in the initial discussions regarding the development of the Methylmercury Monitoring Plan (MMP). This engagement included the sharing of a methylmercury background document and discussions at a November 2019 environment forum. Indigenous group and health authorities expressed interest in providing input on MMP study design during the MMP development, and expressed the importance of communications to support meaningful input by Indigenous groups. BC Hydro intends to implement the MMP during the river diversion stage of Project construction to collect additional baseline data prior to reservoir filling. Collaboration with the FHNA, NHA and Indigenous groups will be described in the draft and final MMP.
EAC 60	The Methylmercury Monitoring Plan must include: Methods for collecting monitoring information must include: · Involving Aboriginal Groups and the FNHA in the design, implementation, management and interpretation and communication of results;	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 60	· Use of information regarding consumption of fish by Aboriginal Groups known to consume fish in the methylmercury monitoring study if available, and non-aboriginal harvesters including: - species and size of fish caught for consumption; o location where fish are caught for consumption; o consumption of fish by age group and gender; - fish meal sizes by age group and gender; - fish meal frequency; - parts of fish consumed; - fish preparation methods; and - other relevant consumption information (e.g. events where consumption is higher over a short period of time such as a camping event); and	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 60	· Use of baseline methylmercury levels in representative fish species consumed by Aboriginal Groups and non-aboriginal harvesters.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 60	Requirements for monitoring the trend and evolution of methylmercury concentrations in fish. Monitoring requirements must include the following: · proposed geographic extent; · proposed monitoring parameters; · proposed monitoring locations; and · proposed monitoring timelines and frequency.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 60	Measures to enable people to limit exposure to methylmercury to avoid risk to human	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	health such as:			
EAC 60	· a detailed communications strategy developed in consultation with relevant Aboriginal groups and government departments and agencies including consumption advisories or other health related bulletin or information, as may be necessary; and	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 60	· an annual update on the status, results, and trends of methylmercury concentrations in fish and the presence of human health risks associated with the consumption of fish from the affected waterbodies.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 60	Baseline information must be established prior to any project impacts using a minimum of two years of data and operations phase monitoring will occur each year for the first ten years of operations and every 5 years after until such time as methylmercury levels in fish populations have stabilized.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 60	The EAC Holder must report on the results to EAO, FNHA and NHA in accordance with the monitoring schedule.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 60	The EAC Holder must provide this draft Methylmercury Monitoring Plan to FNHA and NHA for review a minimum of 90 days prior to the commencement of reservoir filling.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 60	The EAC Holder must file the final Methylmercury Monitoring Plan with EAO, FNHA and NHA a minimum of 30 days prior to the commencement of reservoir filling.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 60	The EAC Holder must develop, implement and adhere to the final Methylmercury Monitoring Plan, and any amendments, to the satisfaction of EAO.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
	HERITAGE RESOURCES			
	Visual Resources			
EAC 61	The EAC Holder must develop and implement measures to manage Project effects on visual resources by undertaking the following throughout construction: · Address how to landscape the shoreline protection area in Hudson‘s Hope to maintain or enhance natural views in collaboration with the District of Hudson’s Hope	Ongoing	In Compliance	BC Hydro has completed public consultation on the Hudson’s Hope shoreline protection area. BC Hydro will collaborate with the District of Hudson's Hope regarding measures to maintain or enhance visual resources. BC Hydro signed a Partnering Relationship Agreement with the District of Hudson's Hope in January 2017 which addresses how the District and BC Hydro will work together on the measures in their community. BC Hydro has reviewed the design of the shoreline protection berm and the day use area and car-topper boat launch with the District.
EAC 61	· Set objectives and requirements for exterior designs for Project structures, and landscaping to blend in with the character of the surrounding environment except in accordance with safety objectives.	Ongoing	In Compliance	BC Hydro has included requirement for building designs to blend in with surrounding in architectural contract terms for Project Structures, where feasible.
EAC 61	· Set objectives and requirements for establishing and building workforce accommodation camps on previously disturbed areas or areas generally hidden from key viewpoints.	Complete	In Compliance	The Site C workforce accommodation camp has been sited on a previously disturbed area and is, in general, hidden from key viewpoints.
EAC 61	The EAC Holder must undertake the measures to the satisfaction of EAO.	Ongoing	In Compliance	The implementation of the measures is underway in accordance with this condition.
	Physical Heritage and Cultural Heritage			

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 62	The EAC Holder must protect and preserve heritage resources by implementing measures as detailed in a Heritage Resources Management Plan.	Ongoing	In Compliance	The Heritage Resources Management Plan (HRMP) is available on the Project website at: https://www.sitecproject.com/heritage-resources-management-plan. Annual reports for field work completed in 2019 under HCA permits and for paleontological resources will be submitted to regulatory agencies by March 31, 2020.
EAC 62	The Heritage Resources Management Plan must be developed by a QEP.	Complete	In Compliance	Section 10.0 of the HRMP lists the QEPs who prepared the plan.
EAC 62	The Heritage Resources Management Plan must specify a process for the engagement of Aboriginal Groups in planning and follow-up/monitoring activities related to heritage resources as the Project proceeds.	Ongoing	In Compliance	Implementation of this requirement is described in the final HRMP and has included: -the opportunity for Indigenous groups to comment on Heritage Conservation Act permit reports and permit amendments in accordance with the Heritage Conservation Act where the Indigenous groups is listed in the permit, - Offers to present heritage work results to Indigenous groups and, -providing archaeology crew field assistant employment opportunities for Indigenous people.
EAC 62	In particular, the Plan must incorporate a process for continued collaboration with Aboriginal Groups on ground-truthing for the identification of any burial sites that the Project may disturb.	Ongoing	In Compliance	Implementation of this requirement is described in the final HRMP and has included: -in accordance with the Heritage Conservation Act, Indigenous groups that may be affected by a permitting decision and who are listed in the permit, are provided a review period of between 15 and 30 days and an opportunity for comment, and -providing archaeological crew field assistant employment opportunities for Indigenous peoples. -providing funding to support additional ground-truthing

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				activities and studies for the identification of potential or confirmed burial sites that may be affected by the Project. - continuing to work with First Nations to implement appropriate burial management solutions. -developing and seeking input from First Nations on the addendum to the Project's Chance Find Procedures (CFPs) -outlining a revised procedure to be followed in the event of a chance find of human remains.
EAC 62	The EAC Holder must provide the draft Heritage Resources Management Plan to Archaeology Branch of FLNR and Aboriginal Groups for review a minimum of 90 days prior to the commencement of construction.	Complete	In Compliance	The draft HRMP was submitted to the Archaeology Branch of FLNR, and Indigenous groups on October 17, 2014.
EAC 62	The Heritage Resources Management Plan must include Archaeological Impact Management and Heritage Resources Monitoring and Follow-Up Programs.	Ongoing	In Compliance	Section 6 of the HRMP describes Heritage Resources Impact Management. Management measures implemented to date have included: -inclusion of heritage requirements in contractor EPPs, as applicable to the scope of work covered by the EPP, -undertaking archaeological work for the Heritage Resources Impact Assessment in accordance with the terms and conditions of Heritage Conservation Act Section 12.2 (formerly Section 14) Heritage Inspection permits, and -undertaking any land-altering work in accordance with Section 12.4 (formerly Section 12) Heritage Conservation Act Site Alteration permit.
EAC 62	The field and reporting portions of each program will be of a scope, duration and frequency prescribed by the BC Heritage Conservation Act permits.	Ongoing	In Compliance	Annual reports for field work completed in 2019 under these permits, and for paleontological resources, will be submitted to regulatory agencies on March 31, 2020.
EAC 62	The Archaeology Impact Management Program must be developed by a QEP qualified to hold Section 12.2 (formerly Section 14) Heritage Inspection and Investigation Permits.	Complete	In Compliance	Section 10.0 of the HRMP lists the QEPs who prepared the plan.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 62	The Heritage Resources Monitoring and Follow-Up Program must include at least the following: · Monitor reservoir erosion during occurrences of exposure to assess the impacts on existing or newly identified protected archaeological sites and other heritage resources	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 62	· Implement mitigation measures, systematic data recovery or emergency salvage operations in accordance with the Heritage Resources Management Plan.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 62	· Conduct the monitoring of shoreline erosion downstream (for approximately 2 km) as part of chance-find procedures to determine if physical heritage resources are affected by the Project. The EAC Holder must undertake this monitoring for any spills from the Project reservoir for a period of two years following the commencement of reservoir filling and commissioning.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro estimates that between 5 and 10 archaeology sites could be affected by diversion. Depending on river flows post-diversion, these sites could be wholly or partially covered by water. For every site that could potentially be affected by diversion, all archaeological investigations have been completed, all regulatory requirements have been met, and each is listed in the Site Alteration Permit which allows for alterations to the sites to occur.
EAC 62	· Establish a reporting structure for reporting to Aboriginal Groups and the Archaeology Branch beginning 180 days following the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 62	The EAC Holder must file the final Heritage Resources Management Plan with EAO, Archaeology Branch and Aboriginal Groups a minimum of 30 days prior to commencement of construction.	Complete	In Compliance	The final HRMP was submitted to EAO, the Archaeology Branch of FLNR, and Indigenous groups on June 5, 2015. Revision 3 of the final HRMP was submitted to EAO, the Archaeological Branch of FLNR, and Indigenous groups on November 19, 2018.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 62	The EAC Holder must develop, implement and adhere to the final Heritage Resources Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Annual reports for field work completed in 2019 under these permits and for paleontological resources will be submitted to regulatory agencies by March 31, 2020.
EAC 63	The EAC Holder must manage adverse Project effects on cultural resources by implementing mitigation measures detailed in a Cultural Resources Mitigation Plan.	Ongoing	In Compliance	BC Hydro is engaging Indigenous groups on the development and implementation of mitigation measures respecting the potential effects of the Project on Indigenous culture and heritage. Results of initiatives conducted under Cultural Resources Mitigation Plan (CRMP) are described in annual reports submitted to the EAO and made available to Indigenous groups through the Project website. Indigenous groups are notified of annual reports through the bi-weekly Site C Information Update emails. The 2018-2019 CRMP Annual Report, describing activities from April 2018 to March 2019 was submitted to the EAO on March 29, 2019. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. In April 2017, the Environmental Assessment Office initiated an inspection in response to a complaint from West Moberly First Nations and Prophet River First Nation regarding the effects of the Highway 29 realignment on cultural and heritage resources in the area of Bear Flats (near the confluence of Cache Creek and the Peace River). BC Hydro and the Ministry of Transportation and Infrastructure worked with Indigenous communities and others on the redesign of the Highway 29 realignment at Cache Creek, and undertook consultation on the alternative route options in 2018, supported by a Structured Decision Making Process, to select a route while seeking to avoid or reduce the effects on potential burial sites and sacred places at Cache Creek. In December 2018, BC Hydro provided Indigenous groups with a draft request to amend the Project's Environmental Assessment Certificate to reflect the revised alignment which was selected through the Structured Decision

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				Making process. A final EAC amendment request was submitted to the Environmental Assessment Office in May 2019. After completion of EAO's consultation on the request, the EAC amendment was issued in December 2019. BC Hydro continues to consult with Indigenous groups regarding construction plans and support Indigenous groups in ground truthing of traditional land use areas within the Project activity zone prior to construction. BC Hydro has provided funding to Indigenous groups for ground truthing through Consultation and Capacity Funding Agreements as well as providing additional funding to Doig River First Nation, Halfway River First Nation, and Blueberry River First Nations for specific cultural investigations. Some Indigenous groups have confidentially identified cultural sites of concern within or near the project area, and BC Hydro is continuing to engage with these groups around mapping of their cultural interests, and potential measures to avoid or mitigate impacts.
EAC 63	The Cultural Resources Mitigation Plan must be developed in collaboration with a Cultural and Heritage Resources Committee (Committee) established by the EAC Holder that includes Aboriginal Groups.	Ongoing	In Compliance	The 2018-2019 CRMP Annual Report, describing activities from April 2018 to March 2019 was submitted to the EAO on March 29, 2019. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020. BC Hydro will update the CRMP as required based on new information, and will continue to implement initiatives described in the plan throughout construction. The 2018 Revision of the CRMP (rev. 3) includes clarification of the role and structure of the Cultural and Heritage Resource Committee. The CRMP includes formation of a Cultural and Heritage Resource Committee. BC Hydro has continued to invite all 13 Indigenous groups named in the EAC and FDS, and representatives from 10 of the Indigenous groups have participated actively in the Committee (Doig River, Blueberry

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				River, Halfway River, Dene Tha', Duncan's, Horse Lake First Nations, McLeod Lake Indian Band, Saulteau First Nations, Métis Nation BC, and Kelly Lake Métis Settlement Society). The Committee has continued to work collaboratively on cultural resources mitigation initiatives, such as identifying measures to commemorate sites that will be lost to inundation, identification and naming of key cultural sites, documenting historical use of the area, including trails, sites, and stories, and discussing and developing an approach to Indigenous cultural awareness and orientation of the workforce. Initiatives underway include signage shelters at the Site C north bank viewpoint, a traveling exhibit that could travel to Indigenous communities, a future permanent exhibit at the Fort St John Museum, a calendar of community events, commemoration videos on the impacts of the Site C project from the perspective of Indigenous groups, and exploring the feasibility of a cultural centre at or near Site C. The Committee has also allocated funding from the overall committee budget to support commemoration and cultural activities that will be implemented individually by each of the 13 Indigenous groups. The Committee is currently working on other projects within their regional sub-groups that will identify measures to commemorate, identify and name key cultural sites, document historical use of the area and provide cultural awareness and orientation of the workforce.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 63	The Cultural Resources Mitigation Plan must include consideration of the following elements and/or others that may be recommended by the Committee: · Identification and naming of key cultural sites · Documenting historical use of the area, including trails, sites, and stories. · Commemoration of sites lost to inundation. · Cultural awareness and orientation of workforce. · Support for cultural camps through financial or in-kind support.	Ongoing	In Compliance	The Cultural Resource and Heritage Committee has continued to work collaboratively on cultural resources mitigation initiatives, such as identifying measures to commemorate sites that will be lost to inundation, identification and naming of key cultural sites, documenting historical use of the area, including trails, sites, and stories, and discussing and developing an approach to Indigenous cultural awareness and orientation of the workforce. Initiatives underway include signage shelters at the Site C north bank viewpoint, a traveling exhibit that could travel to Indigenous communities, a future permanent exhibit at the Fort St John Museum, a calendar of community events, commemoration videos on the impacts of the Site C project from the perspective of Indigenous groups, and exploring the feasibility of a cultural centre at or near Site C. The Committee has also allocated funding from the overall committee budget to support commemoration and cultural activities that will be implemented individually by each of the 13 indigenous groups. In early 2017, BC Hydro secured a facilitator in an effort to make Committee meetings more effective. The facilitator facilitated five meetings during this reporting period and improved Committee meetings by focusing on specific projects and initiatives. A consulting design team, researcher and videographer have participated in Committee meetings to engage Committee members and advance initiatives through the Committee's input and guidance. The Committee continues to meet as a whole and break out into regional sub-groups during Committee meetings, in order to discuss initiatives from regional perspectives.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 63	The EAC Holder must provide the draft Cultural Resources Mitigation Plan to the Committee for review a minimum 90 days prior to the commencement of construction.	Complete	In Compliance	The draft Cultural Resources Mitigation Plan was submitted to Indigenous groups on October 17, 2014.
EAC 63	The EAC Holder must file the final Cultural Resources Mitigation Plan with EAO and the Committee a minimum of 30 days prior to the commencement of construction.	Complete	In Compliance	The final Cultural Resources Mitigation Plan was submitted to Indigenous groups on June 5, 2015. Revision 3 of the final CRMP was submitted to EAO and the Committee November 19, 2018.
EAC 63	The EAC Holder must develop, implement and adhere to the final Cultural Resources Mitigation Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Results of initiatives conducted under Cultural Resources Mitigation Plan are described in annual reports submitted to the EAO and made available to Indigenous groups through the Project website. Indigenous groups are notified of annual reports through the bi-weekly Site C Information Update emails. The 2018-2019 CRMP Annual Report, describing activities from April 2018 to March 2019 was submitted to the EAO on March 29, 2019. The 2019-2020 Annual Report will describe activities from April 2019 to March 2020.
EAC 64	The EAC Holder must provide a total of $100,000 to local accredited facilities in close proximity to the Project, prior to the start of operations, to curate and display the recovered resources and the funding is not to be used for buildings to house them.	Ongoing	In Compliance	BC Hydro will fund local accredited facilities in close proximity to the Project, prior to the start of operations, to curate and display the recovered resources and the funding is not to be used for buildings to house them. In fall 2018, $18,000 was provided to the Fort St John North Peace Museum as part of an agreement that will see that institution accept the archaeological artifacts from the Site C Project on a permanent basis.
EAC 64	These funds must be provided only to facilities that agree to work with interested Aboriginal Groups on the display and curation of those artefacts.	Ongoing	In Compliance	BC Hydro will fund local accredited facilities in close proximity to the Project, prior to the start of operations, to curate and display the recovered resources and the funding is not to be used for buildings to house them. In fall 2018, $18,000 was provided to the Fort St John North Peace Museum as part of an agreement that will see that institution accept the archaeological artifacts from the Site C Project on a permanent basis.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	ENVIRONMENTAL PROTECTION AND MANAGEMENT			
	Greenhouse Gas Emissions			
EAC 65	The EAC Holder must monitor the levels of Greenhouse Gas (GHG) emissions resulting from the Project as detailed in a Greenhouse Gases Monitoring and Follow-Up Program to confirm predictions of the GHG model.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro will submit a draft and final Greenhouse Gases Monitoring and Follow-Up Program to regulatory agencies and Environment Canada within 90 day, and 150 days, respectively, after the commencement of operations.
EAC 65	The Program must include at least the following: · Protocols for monitoring GHG emissions from Site C reservoir for the first 10 years of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 65	· Protocols for monitoring and reporting GHG emissions during operation and maintenance activities.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 65	· A reporting structure for reporting results at least annually during the monitoring and follow-up program period, beginning 180 days following commencement of operations, to MOE and Environment Canada.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 65	The EAC Holder must develop, implement and adhere to the final Greenhouse Gases Monitoring and Follow-Up Program, and any amendments, to the satisfaction of EAO.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 65	The EAC Holder must provide this draft Greenhouse Gases Monitoring and Follow-Up Program to MOE and Environment Canada for review within 90 days after the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 65	The EAC Holder must file the final Greenhouse Gases Monitoring and Follow-Up Program with EAO, MOE and	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	Environment Canada within 150 days after the commencement of operations.			
	ENVIRONMENTAL MANAGEMENT PLANS, FOLLOW-UP AND MONITORING			
EAC 66	The EAC Holder must clearly document its roles and responsibilities for monitoring and reporting employee and contractor performance and compliance with the EAC and its conditions in an Environmental Oversight Program.	Complete	In Compliance	Environmental Management Roles and Responsibilities are described in Section 2.0 of the CEMP.
EAC 66	The Environmental Oversight Program must include requirements for investigating and reporting non-compliance with the EAC and any management plans, ensuring corrective actions are implemented, and requirements for reviewing and updating the Construction Environmental Management Plans and Operations Environmental Management Plans to ensure that they remain relevant and current.	Ongoing	In Compliance	The BC Hydro environmental team onsite inspects and audits against the various environmental documentation and commitments. Contractors and BC Hydro keep a non-compliance report tracking program and share the information to ensure the identified items are acted upon. Some generic items have been identified; moving forward BC Hydro will ensure Non-compliance Reports are specific, actionable with accountable individuals assigned and a due date which is timely but able to be met. If BC Hydro or the IEM identify a non-compliance, contractors are required to investigate, document and rectify the non-compliance, keeping BC Hydro involvement to an inspection, audit, and oversight role. In 2018 BC Hydro inspectors checked for compliance with individual contractor EPP commitments 46,305 times.
EAC 66	The EAC Holder must submit the draft Environmental Oversight Program to EAO 90 days prior to commencing construction.	Complete	In Compliance	The draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014.
EAC 66	The EAC Holder must submit the final Environmental Oversight Program to EAO 30 days prior to commencing construction.	Complete	In Compliance	The final CEMP was submitted to regulatory agencies, governments, and Indigenous groups on June 5, 2015. Revision 2 of the CEMP was issued in February 2016, Revision 4 in July 2016 (Revision 3 was not formally published), Revision 5.1 in May 2019, Revision 6 in July 2019 and Revision 6.1 in December 2019.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 66	The EAC Holder must develop, implement and adhere to the final Environmental Oversight Program, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	The BC Hydro environmental team onsite inspects and audits against the various environmental documentation and commitments. Contractors and BC Hydro keep a non-compliance report tracking program and share the information to ensure the identified items are acted upon. Some generic items have been identified; moving forward BC Hydro will ensure Non-compliance Reports are specific, actionable with accountable individuals assigned and a due date which is timely but able to be met. If BC Hydro or the IEM identify a non-compliance, contractors are required to investigate, document and rectify the non-compliance, keeping BC Hydro involvement to an inspection, audit, and oversight role. In 2018 BC Hydro inspectors checked for compliance with individual contractor EPP commitments 46,305 times.
EAC 67	The EAC Holder must appoint an IEM acceptable to EAO, at least three months prior to construction.	Complete	In Compliance	BC Hydro retained Environmental Dynamics Inc. as the Independent Environmental Monitor for the Project on January 13, 2015. EAO approved this on May 7, 2015.
EAC 67	The IEM will be responsible for monitoring the course of construction of the Project as directed by EAO.	Ongoing	In Compliance	BC Hydro retained Environmental Dynamics Inc. as the Independent Environmental Monitor for the Project on January 13, 2015. EAO approved this on May 7, 2015. EDI provides a weekly environmental monitoring report to BC Hydro and regulators.
EAC 67	The IEM must audit any incident reports as well as EAC Holder responses to the EAC Holder's Environmental Monitor's findings and recommendations (Reports) must be filed with FLNR and EAO within 30 days of request.	Ongoing	In Compliance	BC Hydro retained Environmental Dynamics Inc. as the Independent Environmental Monitor for the Project on January 13, 2015. EAO approved this on May 7, 2015. EDI provides a weekly environmental monitoring report to BC Hydro and regulators.
EAC 67	These Reports must be developed and reported to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro retained Environmental Dynamics Inc. as the Independent Environmental Monitor for the Project on January 13, 2015. EAO approved this on May 7, 2015. EDI provides a weekly environmental monitoring report to BC Hydro and regulators.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 68	The EAC Holder must manage worker and public safety throughout the construction phase by implementing measures detailed in a Construction Safety Management Plan that complies with all applicable requirements of statutes, permits, approvals, and authorizations as outlined in Section 35 of the EIS.	Ongoing	In Compliance	BC Hydro is auditing the implementation of measures in the CSMP by: - reviewing Safety Management Plans /Public Safety Management Plans submitted by the contractors, - holding regular meetings with the contractors to discuss safety performance and exploring opportunities for improvement, and - conducting safety audits during construction to verify that requirements of the Plan are being considered and implemented as required. BC Hydro has also required that the main Prime contractors retain independent third party auditors to conduct safety audits on an annual basis. BC Hydro has obtained a third party auditor to ensure compliance to Prime Contractor requirements.
EAC 68	The Construction Safety Management Plan must be developed by a QEP.	Complete	In Compliance	Section 6.0 of the CSMP lists the QPs who prepared the plan.
EAC 68	The Construction Safety Management Plan must include the following component plans: · Fire Hazard and Abatement Plan;	Ongoing	In Compliance	The Fire Hazard and Abatement plan is described in Section 5.2 of the CSMP. Fire abatement practices are part of everyday work. The BC Hydro Fire Marshall has been actively engaged in fire management planning and fire code review in each phase of construction and site services. The Fire Marshall and/or her representative has been actively engaged in Fire audit work at Site C. Fire Marshall recommendations have formed the basis of corrective action plans to the satisfaction of the Fire Marshall. Fire systems tests have been ongoing at the worker accommodation camp since it opened.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 68	· Public Safety Management Plan;	Ongoing	In Compliance	Section 5.3 of the CSMP describes the Public Safety Management Plan as well as planning for future aspects of the project. The Public Safety Management Plan, developed by a QEP, is described in Section 5.3 of the CSMP. The draft and final CSMPs were submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014 and June 5, 2015, respectively. BC Hydro has obtained the services of a third-party contractor to assist with implementation and monitoring of Public Safety Management Plans as river diversion and other activities draw closer.
EAC 68	· Traffic Management Plan; and	Ongoing	In Compliance	The Traffic Management Plan is contained in Section 5.4 of the CSMP. The Traffic Management Plan applies to the dam site, other work sites that will be influenced by Project-related traffic including, but not limited to, public roads in the Peace River Regional District, Wuthrich Quarry, West Pine Quarry, Highway 29, Hudson's Hope Shoreline Protection, Petroleum Development Roads, Project Access Roads, Jackfish Lane Road, Highway 97 and the transport of extraordinary loads.
EAC 68	· Worker Safety and Health Management Plan;	Ongoing	In Compliance	The Worker Safety and Health Management Plan is contained in CSMP Section 5.5 and its sub-sections. BC Hydro is auditing the implementation of measures in the CSMP by: - reviewing Safety Management Plans /Public Safety Management Plans submitted by the contractors, - holding regular meetings with the contractors to discuss safety performance and exploring opportunities for improvement , and - conducting safety audits during construction to verify that requirements of the Plan are being considered and implemented as required. BC Hydro has also required that the MCW contractor retain independent third party auditors to conduct safety audits on an annual basis. This condition is being met by BC Hydro. The draft and final

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				CSMPs were submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014 and June 5, 2015, respectively.
EAC 68	Each component plan in addition to plan specific conditions in this document must include the following: · Clear statement of Objectives;	Ongoing	In Compliance	The draft and final CSMPs were submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014 and June 5, 2015, respectively. The CSMP contains a clear statement of objectives.
EAC 68	· Description of potential Project effects and safety hazards, through consideration of baseline conditions and sensitive receptors;	Ongoing	In Compliance	BC Hydro is auditing the implementation of measures in the CSMP by: - reviewing Safety Management Plans /Public Safety Management Plans submitted by the contractors, - holding regular meetings with the contractors to discuss safety performance and exploring opportunities for improvement - conducting safety audits during construction to verify that requirements of the Plan are being considered and implemented as required. BC Hydro has also required that the MCW contractor retain independent third party auditors to conduct safety audits on an annual basis. This condition is being met by BC Hydro. The draft and final CSMPs were submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014 and June 5, 2015, respectively.
EAC 68	· Clear documentation of all measures to be implemented and actions to be taken to mitigate potential effects and safety hazards;	Ongoing	In Compliance	Unexpected hazards encountered during construction are communicated to all contractors.
EAC 68	· Description of worker qualifications and training requirements pertaining to the Construction Safety Management Plan;	Ongoing	In Compliance	CSMP requires that workers are appropriately qualified. The audit cycle ensures that this takes place, and WorkSafe BC also audits for compliance with worker qualifications. Requirements for safety training, orientation, training and tailboard meetings are also discussed in Section 3 of the CSMP. BC Hydro and Work Safe BC also audit for compliance with worker qualifications.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 68	· Description of reporting requirements; and	Ongoing	In Compliance	BC Hydro is auditing the implementation of measures in the CSMP by: - reviewing Safety Management Plans /Public Safety Management Plans submitted by the contractors, - holding regular meetings with the contractors to discuss safety, performance and exploring opportunities for improvement, and - conducting safety audits during construction to verify that requirements of the Plan are being considered and implemented as required. BC Hydro has also required that the Prime contractors retain independent third party auditors to conduct safety audits on an annual basis. The draft and final CSMPs were submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014 and June 5, 2015, respectively. Reporting requirements are being met by: BC Hydro's Incident Management System reporting, weekly reports on upcoming work to WorkSafe BC, and various weekly reports on safety including statistics, monthly business reviews on safety, reviews of incidents and investigations.
EAC 68	· Process for revising and updating the Construction Safety Management Plan.	Ongoing	In Compliance	The CSMP is updated as needed and if conditions on site change.
EAC 68	The EAC Holder must provide the draft Construction Safety Management Plan to regulatory agencies, Peace River Regional District, City of Fort St. John and the District of Hudson's Hope and Aboriginal Groups for review 90 days prior to commencement of construction.	Complete	In Compliance	The draft CSMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014.
EAC 68	The EAC Holder must file the final Construction Safety Management Plan with EAO, regulatory agencies, Peace River Regional District, City of Fort St. John and	Complete	In Compliance	The final CSMP was submitted to regulatory agencies, governments, and Indigenous groups on June 5, 2015. Revision 2 of the CSMP was issued March 22, 2017 and contains updates to Section 5.4.12 Traffic Monitoring and Appendix C.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	District of Hudson's Hope and Aboriginal Groups 30 days prior to commencement of construction.			
EAC 68	The EAC Holder must develop, implement and adhere to the final Construction Safety Management Plan, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro is auditing the implementation of measures in the CSMP by: - reviewing Safety Management Plans /Public Safety Management Plans submitted by the contractors, - holding regular meetings with the contractors to discuss safety performance and explore opportunities for improvement, and - conducting safety audits during construction to verify that requirements of the Plan are being considered and implemented as required. BC Hydro has also required that the MCW contractor retain independent third party auditors to conduct safety audits on an annual basis.
EAC 69	The EAC Holder must manage effective environmental protection and management throughout the construction phase by implementing measures detailed in a Construction Environmental Management Plan (CEMP).	Ongoing	In Compliance	The current version of the CEMP Rev 6.1 dated December 12, 2019 BC Hydro is auditing those measures of the CEMP by: - reviewing EPPs submitted by the contractors, - conducting environmental inspections during construction to verify that requirements of the Plan are being considered and implemented as required, and - responding to issues identified by IEM in its weekly inspection reports.
EAC 69	The CEMP must be developed by a QEP.	Complete	In Compliance	Section 6.0 of the CEMP lists the QPs who prepared the plan.
EAC 69	The CEMP must provide details on how potential adverse effects will be avoided, mitigated, or compensated.	Complete	In Compliance	The CEMP provides details on how potential adverse effects will be avoided, mitigated, or compensated.
EAC 69	The CEMP must include the following: · Acid Rock Drainage and Metal Leachate Management Plan;	Complete	In Compliance	Appendix E of the CEMP contains the Acid Rock Drainage and Metal Leachate Management Plan.
EAC 69	· Air Quality Management Plan;	Complete	In Compliance	Appendix B of the CEMP contains the Air Quality Monitoring

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				Program.
EAC 69	· Blasting Management Plan;	Complete	In Compliance	Blasting Management is described in Section 4.2 of the CEMP
EAC 69	· Contaminated Sites Management Plan;	Complete	In Compliance	Contaminated Sites Management is described in Section 4.3 of the CEMP.
EAC 69	· Erosion Prevention and Sediment Control Plan;	Complete	In Compliance	Erosion Prevention and Sediment Control Management is described in Section 4.4 of the CEMP.
EAC 69	· Fisheries and Aquatic Habitat Management Plan;	Complete	In Compliance	The Fisheries and Aquatic Habitat Management Plan is described in Section 4.5 of the CEMP.
EAC 69	· Fuel Handling and Storage Management Plan;	Complete	In Compliance	Fuel Handling and Storage Management is described in Section 4.6 of the CEMP.
EAC 69	· Groundwater Protection Plan;	Complete	In Compliance	Groundwater Protection is described in Section 4.7 of the CEMP.
EAC 69	· Hazardous Waste Management Plan;	Complete	In Compliance	Hazardous Wastes Management is described in Section 4.8 of the CEMP.
EAC 69	· Heritage Resources Management Plan;	Complete	In Compliance	Heritage Resource Management is described in Section 4.9 of the CEMP.
EAC 69	· Ice Management Plan;	Complete	In Compliance	Ice Management is described in Section 4.10 of the CEMP. BC Hydro will retain a QP to develop and implement a Head Pond Ice Monitoring Plan for the Stage 2 diversion stage of construction.
EAC 69	· Noise and Vibration Management Plan;	Complete	In Compliance	Noise and Vibration Management is described in Section 4.11 of the CEMP.
EAC 69	· Smoke Management Plan;	Complete	In Compliance	Appendix A of the CEMP contains the Smoke Management Plan (SMP) - Rev 3 of the SMP was published December 12, 2019.
EAC 69	· Soil Management, Site Restoration, and Revegetation Plan;	Complete	In Compliance	Appendix H of the CEMP contains the Soil Management, Site Restoration, and Revegetation Plan
EAC 69	· Spill Prevention and Response Plan;	Complete	In Compliance	Spill Prevention and Response is described in Section 4.13 of the CEMP.
EAC 69	· Surface Water Quality Management Plan;	Complete	In Compliance	Surface Water Quality Management is described in Section 4.14 of the CEMP.
EAC 69	· Vegetation and Invasive Plant Management Plan;	Ongoing	In Compliance	Vegetation and Invasive Plant Management Plan is described in Section 4.15 of the CEMP.
EAC 69	· Waste Management Plan; and	Complete	In Compliance	The Waste Management Plan is described in Section 4.16 of the

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				CEMP.
EAC 69	· Wildlife Management Plan.	Complete	In Compliance	The Wildlife Management Plan is described in Sections 3.0 and 4.17 of the CEMP and Section 8.6.2 of the VWMMP.
EAC 69	· Process for revising and updating the CEMP.	Ongoing	In Compliance	The process for revising and updating the CEMP is described in Section 2.6 of the CEMP.
EAC 69	The CEMP is to be prepared by BC Hydro.	Complete	In Compliance	The process for revising and updating the CEMP is described in Section 2.6 of the CEMP.
EAC 69	Detailed Environmental Protection Plans will be developed which must include the following: · Clear statement of objectives; · Description of potential Project effects and safety hazards, through consideration of baseline conditions and sensitive receptors; · Clean documentation of applicable legislative requirements that must be adhered to, as well as BC Hydro policies, guidelines and other best management practices that will be followed; · Clear documentation of measures to be implemented and actions to be taken to mitigate or compensate potential effects; · Description of worker qualifications and training requirements pertaining to each of the plans associated with the Constructive Environmental Management Plan; and · Description of Monitoring and Reporting Requirements.	Ongoing	In Compliance	Environmental Protection Plan requirements are detailed in Section 2.4 of the CEMP. BC Hydro audits compliance with this requirement by reviewing contractor EPPs.
EAC 69	The EAC Holder must provide the draft CEMP to regulatory agencies, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups for review a minimum of 90 days	Complete	In Compliance	The draft CEMP was submitted to regulatory agencies, governments, and Indigenous groups on October 17, 2014

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	prior to the commencement of construction.			
EAC 69	The EAC Holder must file the CEMP with EAO, regulatory agencies, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups 30 days prior to the commencement of construction.	Complete	In Compliance	The final CEMP was submitted to regulatory agencies, governments, and Indigenous groups on June 5, 2015. Revision 2 of the CEMP was issued in February 2016, Revision 4 in July 2016 (Revision 3 was not formally published), Revision 5.1 in May 2019, Revision 6 in July 2019 and Revision 6.1 in December 2019.
EAC 69	The EAC Holder must develop, implement and adhere to the CEMP, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	BC Hydro audits compliance with the CEMP by reviewing contractor EPPs and conducting environmental audits during construction to verify implementation of EPPs.
EAC 70	The EAC Holder must manage Project effects through construction and operations by implementing measures detailed in mitigation and monitoring plans.	Ongoing	In Compliance	BC is implementing mitigation measures as outlined in the mitigation and monitoring plans developed to date, as required by the EAC.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 70	Each mitigation and monitoring plan in addition to plan specific conditions in this document must include the following: · Plan objectives; · Plan scope; · Mitigation plan details (including details of any sub- components), including a summary of potential Project effects and baseline conditions relevant to the plan and any sub- components, a schedule and a spatial description of the plan area; · Monitoring plan details, where monitoring is required, including parameters to be monitored or measured, a schedule (including frequency and duration), a spatial description of monitoring plan area or sampling locations; and · Description of plan reporting requirements.	Ongoing	In Compliance	Final mitigation plans have been submitted to the EAO in accordance with the requirements of the EAC. These plans address the content requirements set out by the EAC. Plans submitted to date are as follows: - Aboriginal Plant Use Mitigation Plan - Aboriginal Training and Inclusion Plan - Agricultural Monitoring and Follow-up Program - Agricultural Mitigation and Compensation Plan Framework - Business Participation Plan - Construction Environmental Management Plan (Rev 4) - Construction Safety Management Plan (Rev 2) - Cultural Resources Mitigation Plan - Del Rio Pit Development Plan - Emergency Services Plan - Fisheries and Aquatic Habitat Management Plan - Fisheries and Aquatic Habitat Monitoring and Follow-up Program - Healthcare Services Plan - Heritage Resources Management Plan - Housing Plan and Housing Monitoring and Follow-up Program (Rev2) - Impervious Core Materials Source Development Plan (85th Ave Industrial Lands Detailed Operations Plan) - Labour and Training Plan - Outdoor Recreation Mitigation Program -Portage Mountain Development Plan - Recreation Program - Vegetation Wildlife Mitigation and Monitoring Plan - Vegetation Clearing and Debris Removal Plan - West Pine Quarry Development Plan; and - Wuthrich Quarry Development Plan
EAC 71	The EAC Holder must manage environmental protection and management by implementing measures in the following Development Plans:	Ongoing	In Compliance	The draft and final Development Plans for Del Rio Pit were submitted to regulatory agencies, governments and Indigenous groups on April 7, 2015 and June 5, 2015, respectively. The plan sets out the plan purpose, scope, details, safety and

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	· Del Rio Pit Development Plan;			environmental management, and site reclamation strategy (as appropriate). To date, no activities have taken place at Del Rio Pit.
EAC 71	· Impervious Core Materials Source Development Plan;	Ongoing	In Compliance	The draft and final Impervious Core Materials Source Development Plan (Detailed Operations Plan for 85th Avenue Industrial Lands) were submitted to regulatory agencies, governments and Indigenous groups on September 21, 2016 and November 22, 2016, respectively. The plan sets out the plan purpose, scope, details, safety and environmental management, and site reclamation strategy as appropriate.
EAC 71	· Portage Mountain Quarry Development Plan; and	Ongoing	In Compliance	The draft and final Portage Mountain Quarry Development Plan were submitted to regulatory agencies, governments and Indigenous groups on May 10, 2019 and July 10, 2019 respectively. (No changes were made from the draft to the final plan). The plan sets out the plan purpose, scope, details, safety and environmental management, and site reclamation strategy as appropriate.
EAC 71	· Wuthrich Quarry Development Plan.	Ongoing	In Compliance	The plan sets out the plan purpose, scope, details, safety and environmental management, and site reclamation strategy (as appropriate).
EAC 71	Each Development Plan will include the following: · Plan purpose; · Plan scope; · Plan details; · Summary of safety and environmental management; and · Site reclamation strategy.	Ongoing	In Compliance	All Development Plans submitted to date describe the purpose, scope, details, safety and environmental management, and site reclamation strategy (as appropriate).
EAC 71	The EAC Holder must provide the draft Development Plans to regulatory agencies, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and	Complete	In Compliance	The draft Development Plans for Del Rio Pit, Impervious Core Materials Source (85th Avenue Industrial Lands), and Wuthrich Quarry, were submitted to regulatory agencies, governments and Indigenous groups on April 7, 2015, September 21, 2016

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	Aboriginal Groups for review a minimum of 90 days prior to the commencement of construction activities that require an applicable Development Plan.			and April 7, 2015, respectively.
EAC 71	The EAC Holder must file the Final Development Plans with EAO, regulatory agencies, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups 30 days prior to the commencement of construction activities that require an applicable Plan.	Complete	In Compliance	The final Development Plans for Del Rio Pit, Impervious Core Materials Source (85th Avenue Industrial Lands), and Wuthrich Quarry, were submitted to regulatory agencies, governments and Indigenous groups on June 5, 2015, November 22, 2016 and June 5, 2015, respectively.
EAC 71	The EAC Holder must develop, implement and adhere to the Final Development Plans, and any amendments, to the satisfaction of EAO.	Ongoing	In Compliance	Works at quarries are conducted in accordance with the Final Development Plans. The 2019 Annual Summary Reports for quarries will be submitted to regulatory agencies and Indigenous groups by March 31, 2020.
EAC 72	The EAC Holder must manage effective communications for the Project by implementing measures in communication plans and a business participation plan.	Ongoing	In Compliance	BC Hydro is meeting this condition (see also Condition 58). The Site C project team is implementing the Construction Communication Plan and Aboriginal Group Communication Plans to ensure that residents, stakeholders and Indigenous groups are provided with advance notification about construction. The Site C project team is implementing the Business Participation Plan to keep businesses informed and updated on the opportunities associated with the construction of the Project. Examples of implementation measure include: mail drops and letters, construction updates and bulletins, presentations, Indigenous construction notification letters and updates to the project website. Other tactics also being used to provide construction- related and business opportunity information include Council Presentations, Regional Community Liaison Committees, presentations to stakeholders, government

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
				relations and property owner liaison.
EAC 72	The following communication and participation plans are to be developed and implemented: · Business Participation Plan;	Ongoing	In Compliance	The response to Condition 58 and the response to Condition 72 describe compliance with the Business Participation Plan.
EAC 72	· Construction Communication Plan; and	Ongoing	In Compliance	See response to Condition 27 (Aboriginal construction communications) and Condition 72.
EAC 72	· First Nations Communication Plan.	Ongoing	In Compliance	Condition 27 describes compliance with the Aboriginal Group Communications Plan.
EAC 72	Each plan in addition to plan specific conditions identified in this document will include: · Clear Statement of Objectives; · Audiences; · Key activities and tools; and · Annual summary reporting.	Ongoing	In Compliance	Condition 27 describes compliance with the Aboriginal Group Communications Plan.
EAC 73	The EAC Holder must manage worker and public safety throughout the operations phase by implementing measures detailed in an Operations Safety Management Plan that complies with all applicable requirements of statutes, permits, approvals, and authorizations as outlined in Section 35 of the EIS.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition. BC Hydro will submit a draft Operations Safety Management Plan, developed by a QEP, to regulatory agencies, governments and Indigenous groups, a minimum of 90 days and 30 days, respectively, prior to the commencement of operations.
EAC 73	The Operations Safety Management Plan must be developed by a QEP.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 73	The Operations Safety Management Plan must include the following component plans: · Public Safety Management Plan (including the Reservoir Shoreline Monitoring and Management Plan); and	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 73	· Worker Safety and Health Management Plan.	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 73	Each component plan must include the following: · Clear Statement of Objectives;	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 73	· Description of potential Project effects and safety hazards, through consideration of baseline conditions and sensitive receptors;	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 73	· Clear documentation of all applicable legislative requirements that must be adhered to, as well as BC Hydro policies, guidelines and other best management practices that will be followed;	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 73	· Clear documentation of compliance and effectiveness monitoring to be undertaken;	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 73	· Description of worker qualifications and training requirements pertaining to the Plan(s);	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 73	· Description of reporting requirements; and	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 73	· Process for revising and updating the Operations Safety Management Plan.	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition.
EAC 73	The EAC Holder must provide this draft Operations Safety Management Plan, including all component plans, to regulatory agencies, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups for review a minimum of 90 days prior to the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 73	The EAC Holder must file the final Operations Safety Management Plan, including component plans with EAO, regulatory agencies, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups a	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	minimum of 30 days prior to the commencement of operations.			
EAC 73	The EAC Holder must develop, implement and adhere to the final Operations Safety Management Plan, and any amendments, to the satisfaction of EAO.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	The EAC Holder must manage to ensure effective environmental protection and management throughout the operations phase by implementing measures detailed in an Operations Environmental Management Plan (OEMP).	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	The OEMP must be developed by a QEP.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	The OEMP must include the following plans: · Hazardous Waste Management Plan;	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	· Ice Management Plan;	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	· Vegetation and Invasive Plant Management;	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	· Waste Management Plan (including Materials Management); and	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	· Water Management Plan.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	Each plan must include the following: · A Clear Statement of Objectives;	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	· Description of potential Project effects, through consideration of baseline conditions and sensitive receptors;	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	· Clear documentation of all applicable legislative requirements that must be adhered to, as well as BC Hydro policies,	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	guidelines and other best management practices that will be followed;			
EAC 74	· Clear documentation of compliance and effectiveness monitoring to be undertaken;	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	· Description of reporting requirements; and	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	· Process for revising and updating the Plan.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	The EAC Holder must provide this draft OEMP, including all plans, to regulatory agencies, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups for review a minimum of 90 days prior to the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	The EAC Holder must file the final OEMP, with regulatory agencies, Peace River Regional District, City of Fort St. John, District of Hudson's Hope and Aboriginal Groups a minimum of 30 days prior to the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 74	The EAC Holder must develop, implement and adhere to the final OEMP, and any amendments, to the satisfaction of EAO.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 75	The EAC Holder must provide its on-site project employees, contractors and sub-contractors, prior to those employees, contractors and sub-contractors starting work, with briefings on and copies of Schedule B (Table of Conditions) of the EAC and all Environmental and Safety Management Plans identified in Schedule B	Ongoing	In Compliance	Prior to the start of field activities, Field Crew Supervisors, QEPs and Environmental Monitors attend an environmental overview and training workshop, where they review EAC and all Environmental and Safety Management Plans identified in Schedule B that are relevant to works.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	that are relevant to their works.			
	DAM SAFETY			
EAC 76	The EAC Holder must conduct an assessment of the impacts of a multiple cascading dam breach, in accordance with the Canadian Dam Association Guidelines and BC Hydro's Dam Safety Program,	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 76	and share the results of that study with the Government of Alberta, FLNR and the authorities of the towns that would be affected, prior to the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 77	The EAC Holder must consult with the Government of Alberta and emergency management officials in Alberta, and FLNR on communication and contingency plans to address the potential occurrences of a multiple cascading dam breach, prior to the commencement of operations.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
	WEST PINE HAUL ROUTE TRAFFIC MANAGEMENT PLAN			
EAC 78	The Holder must develop a West Pine Haul Route Traffic Management Plan (the "Plan") regarding use of the West Pine Haul Route by the Holder. The West Pine Haul Route (see Appendix A of this Order) comprises Highway 97 to Chetwynd, Highway 29 through Hudson's Hope to the Highway 29 realignment sites.	Complete	In Compliance	BC Hydro acknowledges and understands this condition. BC Hydro developed the West Pine Haul Route Traffic Management Plan in consultation with affected communities in 2019. Requirement for West Pine Quarry Material was not realized in 2019. Construction in 2020 will require material from West Pine Quarry and BC Hydro intends to comply with this condition

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 78	The Plan must be developed in consultation with Saulteau First Nations, West Moberly First Nations, the District of Hudson's Hope, the District of Chetwynd, and the Peace River Regional District (the "Affected Communities") and the Ministry of Transportation and Infrastructure (MOTI)	Complete	In Compliance	BC Hydro acknowledges and understands this condition. BC Hydro developed the West Pine Haul Route Traffic Management Plan in consultation with affected communities in 2019. The final plan, dated April 2019, is posted to the Project website. Material for the construction of Highway 29 realignment segments was not required in 2019.
EAC 78	The Plan must be developed to the satisfaction of the EAO and include at least the following: a)Identify potential adverse effects related to traffic along the West Pine Haul Route and measures to mitigate those effects of West Pine Quarry haul truck traffic on the West Pine Haul Route, including identification of locations to monitor haul truck traffic counts and the means by which the Holder will conduct monitoring for haul truck traffic counts;	Complete	In Compliance	Section 3 of the West Pine Haul Route Traffic Management Plan describes the Mobility and Safety and Mobility impacts and mitigation measures of the haul route. Section 4 of the Management Plan describes potential community impacts and mitigation measures.
EAC 78	b) The means by which the Holder will identify additional mitigation measures if the measures referred to in paragraph (a) are not sufficient to mitigate the effects identified in paragraph (a);	Complete	In Compliance	Section 3 of the West Pine Haul Route Traffic Management Plan describes the Mobility and Safety and Mobility impacts and mitigation measures of the haul route. Section 4 of the Management Plan describes potential community impacts and mitigation measures.
EAC 78	c) The means by which the Holder will provide, at a minimum, monthly updates to the Affected Communities regarding the Holder's use of the West Pine Haul Route;	Complete	In Compliance	Section 5 of the West Pine Haul Route Traffic Management Plan describes how monthly updates regarding the use of the haul route will be provided to Affected Communities.
EAC 78	d) A process for communication and data sharing that must occur, at minimum, on a monthly basis with the Ministry of Transportation and Infrastructure; and	Complete	In Compliance	Section 5 of the West Pine Haul Route Traffic Management Plan describes how communication and data sharing will occur during use of the haul route.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 78	e) Data referred to in d), at a minimum, must include records of the location of traffic accidents, the location of any traffic related fatalities, complaints received from the public, and wildlife mortality attributable to the Holder's use of the West Pine Haul Route.	Complete	In Compliance	Section 5 of the West Pine Haul Route Traffic Management Plan describes how communication and data sharing will occur during use of the haul route.
EAC 78	3. The Holder must provide this Plan to the EAO, the Affected Communities, and MOTI a minimum of 30 days prior to the planned commencement of use of the West Pine Haul Route for the purposes of transporting materials from the West Pine Quarry to Highway 29 realignment segments, Shoreline Protection sites in Hudson's Hope, and areas of the reservoir requiring protection during reservoir filling.	Complete	In Compliance	BC Hydro provided the West Pine Haul Route Traffic Management to Affected Communities and MOTI on April 17, 2019. No material from West Pine was used for Highway 29 realignment works was used in 2019. The route is planned to be used in 2020.
EAC 78	The EAO may, within 30 days of receiving the Plan, advise that: a) The Holder may proceed to implement the Plan with or without revisions; or b) A revised Plan, must be provided for approval of the EAO prior to commencement of use of the West Pine Haul Route for the purposes of transporting materials from the West Pine Quarry to Highway 29 realignment segments, Shoreline Protection sites in Hudson's Hope, and areas of the reservoir requiring protection during reservoir filling. If the EAO advises that pursuant to paragraphs 3 (a) or (b) changes are required to the Plan, then the Holder must follow the instructions of the EAO in that regard.	Complete	In Compliance	BC Hydro understands and acknowledges this condition. EAO did not provide any comments on the plan.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 78	4. At the time of submitting the Plan to the EAO, the Holder must also provide the EAO a consultation report setting out the following: a) A list of the invitees and an example of the invitation sent to the Affected Communities and MOTI to participate and provide their views including the timeframe for providing such views, on the Plan; and b) How the views and information provided by the Affected Communities and MOTI to the Holder have been considered and addressed in the Plan; or c) Why such views and information have not been addressed in the Plan.	Complete	In Compliance	BC Hydro provided the West Pine Haul Route Traffic Management to Affected Communities and MOTI on April 17, 2019, along with a description of the consultation with Affected Communities and MOTI that took place during development of the plan.
EAC 78	5. The Holder must: a) Maintain a record of the consultation referred to in paragraphs 1 and 3 and the comments provided by the Affected Communities, MOTI and the EAO under paragraph 3, above; and	Complete	In Compliance	BC Hydro provided the West Pine Haul Route Traffic Management to Affected Communities and MOTI on April 17, 2019, along with a description of the consultation with Affected Communities and MOTI that took place during development of the plan.
EAC 78	b) Provide a copy of the consultation report, required under paragraph 4 of this condition, to the EAO, the Affected Communities, MOTI, or all three parties, within 15 days of the Holder receiving a written request from the EAO, an Affected Community, or MOTI.	Complete	In Compliance	BC Hydro provided the West Pine Haul Route Traffic Management to Affected Communities and MOTI on April 17, 2019, along with a description of the consultation with Affected Communities and MOTI that took place during development of the plan.
EAC 78	The Plan, and any amendments thereto, must be implemented to the satisfaction of the EAO throughout the duration of use of the West Pine Haul Route for the purposes of transporting materials from the West Pine Quarry to Highway 29 realignment segments, Shoreline Protection sites in	Ongoing	In Compliance	BC Hydro acknowledges and understands this condition. The haul route plan will be updated as required during construction of the Highway 29 realignment segments.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
	Hudson's Hope, and areas of the reservoir requiring protection during reservoir filling.			
	HIGHWAY 29 REALIGNMENT – CACHE CREEK SEGMENT, NOISE MONITORING AND MITIGATION			
EAC 79	The Holder must retain a Qualified Professional to develop a noise monitoring plan to assess potential vehicle traffic noise impacts from the Highway 29 realignment at Cache Creek to the sweat lodge (the receiver location) identified in the application to amend the Certificate.	Complete	In Compliance	BC Hydro has retained RWDI Consultants to provide QP support on noise monitoring at the Cache Creek location.
EAC 79	The plan must be developed in consultation with West Moberly First Nations.	Ongoing	In Compliance	The plan has been developed as required with a QP-noise monitoring and was submitted to West Moberly First Nations for review and comment on of February 5, 2020. BC Hydro continues to reach out to West Moberly First Nations for feedback on the plan.
EAC 79	The plan must be developed to the satisfaction of the EAO and include at least the following: a) Methods to monitor noise levels at the receiver location during all four seasons, with Highway 29 operating in the: i. Current location approximately 235 m away from the sweat lodge (pre-realignment); and ii.Realigned location approximately 370 m from the sweat lodge (post-realignment).	Ongoing	In Compliance	BC Hydro is currently reaching out to West Moberly First Nations for feedback on the development of the Noise Monitoring Plan, which includes a draft of the requirements set out by this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 79	b) Efforts undertaken to consult with West Moberly First Nations on the draft plan and the opportunities made available to them to participate and provide their views, and how their views have been considered and addressed or why their views have not been addressed.	Ongoing	In Compliance	BC Hydro is currently reaching out to West Moberly First Nations for feedback on the draft Noise Monitoring Plan. BC Hydro will provide a summary of this engagement on submission of the plan to EAO.
EAC 79	c) The Holder must retain a Qualified Professional to develop a report and provide it to the EAO, West Moberly First Nations no later than 90 days after Highway 29 has been operating in its realigned location for one year. The report must include at least the following: i. Monitoring results from a);	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.
EAC 79	The report must include at least the following: i. Monitoring results from a); ii. Identification of noise level thresholds for post-realignment, compared to noise levels at the current highway alignment that, if exceeded, would trigger the need for mitigation; iii. Mitigation measures that the Holder will implement to reduce noise levels to below the thresholds in ii) if monitoring results in a) shows that these thresholds were exceeded; and iv. Monitoring plan to assess effectiveness of mitigation measures, if required under this condition.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

No.	EAC Condition	Implementation Status	Compliance Status	2020 Description
EAC 79	The Holder must provide the plan to the EAO and West Moberly First Nations no later than 90 days prior to operation of the realigned Cache Creek Segment of Highway #29.	Initial Planning	Future Requirement	BC Hydro acknowledges and understands this condition.

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Annual Progress Report No. 5
(Combined with Quarterly Progress Report No. 20)

Appendix G

Summary of Individual Contracts
Exceeding $10 Million

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Appendix H

Project Progression

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Appendix I

Detailed Project Expenditure

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