

**Site C Clean Energy Project**

**Monthly Environmental Monitoring Summary Report -**  
**March 2017**

Prepared by BC Hydro  
Submitted July 5, 2017

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## Glossary

Term	Definition
Compliance	When construction activities are being conducted in accordance with the Environmental Requirements of the Project.
Environmental Requirements	<p>Environmental Specifications set out in the CEMP and relevant Environmental Protection Plan (EPP).</p> <p>Conditions included in the Environmental Assessment Certificate for the Project (BCEAO 2014).</p> <p>Conditions included in the Decision Statement issued by the Minister of Environment of Canada (CEA Agency 2014).</p> <p>Permits, authorizations and approvals issued for the Project by regulatory agencies and Statutory requirements.</p>
Non-conformance	A construction activity conducted in a manner that deviates from a best management practice, compliance with which is required in the EPP for that construction activity.
Non-compliance	A construction activity conducted in a manner that deviates from a legal condition in a permit, an enactment, or a regulation, compliance with which is required in the EPP for that construction activity.
Reportable Environmental Incident	<p>An incident of non-conformance or non-compliance which:</p> <ul style="list-style-type: none"><li>• has caused or has the potential for causing an impact on the quality of air, land or water, wildlife, aquatic species, species at risk or heritage resources, and</li><li>• is reportable under a permit, an enactment, or a regulation.</li></ul>

## Introduction

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

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

Construction of the Project is subject to specific conditions described in various regulatory permits and approvals issued from federal and provincial authorities. Examples of federal approvals issued for the Project include authorizations under the *Fisheries Act* that enables the alteration of fish habitat and authorizations under the *Navigation Protection Act* that enables construction activities which may affect navigation in the Peace River. Examples of provincial approvals issued for the Project include Environmental Assessment Certificate (EAC) #E14-02 and its associated conditions issued under the *Environmental Assessment Act* and Conditional Water Licenses issued under the *Water Act* that permit construction of the dam and flooding of the reservoir.

In accordance with the EAC Conditions, during construction of the Project BC Hydro is required to implement measures detailed within a Construction Environmental Management Plan (CEMP) such that potential adverse environmental effects are avoided, mitigated or compensated. These measures include the requirement for construction contractors to prepare and follow activity- and site-specific Environmental Protection Plans (EPPs) which detail mitigation measures and how they will be implemented and the requirement for BC Hydro to audit contractor compliance with the Project's environmental management requirements.

Section 2.1 of the CEMP specifies that BC Hydro will prepare and distribute monthly summary reports during construction of the project that include the following information:

- Project progress;
- Permits issued by provincial and federal agencies;
- Environmental Management Plan (EMP) and EPP submissions;
- Reports submitted by contractor Environmental Monitors (EMs);
- Results of BC Hydro field inspections;
- Environmental incidents and applicable corrective action; and
- Compliance of construction activities with the Environmental Requirements.

This report serves as BC Hydro's summary report for the month of March 2017.

## **Project Progress**

During March 2017, the following construction activities were undertaken for the Project.

### **North or Left Bank**

#### River Road Upgrades

- Started reconstruction of the River Road slope and width at Blind Corner.

#### Left Bank Excavation

- Continued ongoing excavation works.
- Relocated excavated PAG material to temporary PAG storage area on Bench 5.

#### RSEM L3, Area 25

- Removed sediment and ice buildup at the inlet of the propriety culvert within the lower L3 ravine.
- Constructed temporary storm water pond and drainage ditches on flat above the RSEM L3 ravine near the diversion pipe outlet.
- Continued placing 9b fill material hauled from Left Bank excavation at Area 25. Fill material being placed at south east corner of fill area footprint.

#### RSEM L5 and Garbage Creek

- Continued development of construction pad to extend HDPE Diversion pipe into Peace River.

### **South or Right Bank**

#### Area A

- Continued mulching large course woody debris and stripping topsoil along the transmission line right of way.

#### Approach Channel

- Continued excavating for Approach Channel and hauling overburden material to RSEM.

#### Cofferdam

- Continued construction of slurry wall.

#### Drainage Tunnel

- Continued drainage tunnel excavation.

#### Moberly River Construction Bridge

- Continued constructing of west causeway.

#### Roller Compacted Concrete (RCC) Buttress Trial

- Continued with RCC trial tests.

#### RSEM 5a

- Continued fish salvage in side channel.
- Continued receiving PAG materials that were temporarily stockpiled in Area 23.
- Continued receiving excavated materials from approach channel excavation.

#### RSEM 5b

- Continued discharging water actively and passively into the Peace River.

#### RSEM R6

- Continued construction of sediment pond and outlet system.

#### South Bank Initial Access Road (SBIAR)

- Continued development of ditching on the west side of the haul road and between the haul and light duty roads.

#### **Offsite**

##### Wuthrich Quarry

- Ongoing ditch maintenance and water control.

##### West Pine Quarry

- Blasting activity is restricted from January 1 to March 30, 2017 due to the caribou winter habitat range.

##### Transmission Line

- Continued clearing along transmission line access roads.
- Continued clearing along transmission line right of way.

##### Highway 29 Realignment

- Continued clearing and mulching between Cache Creek and Bear Flats.

### Eastern Reservoir Clearing

- Continued clearing west of Moberly River towards Tea Island area.
- Started installation of temporary bridge to access Tea Island.

## **Permits Issued by Federal and Provincial Agencies**

Table 1 provides a summary of relevant federal and provincial permits issued for the Project.

**Table 1. Relevant Federal and Provincial Permits Issued for the Project.**

*\*does not include Water Sustainability Act Notifications*

Act	Permit	Permit Duration
<b>ALL PROJECT SITES</b>		
<i>Fisheries Act</i>	Authorization for Site Preparation Activities	Sep 30, 2015 – Jun 30, 2017
<i>Fisheries Act</i>	Authorization Paragraph 35(2)(B) - Revised	Aug 22, 2016 - Dec 31, 2026
<i>Fisheries Act</i>	Authorization Paragraph 35(2)(B)	Jul 27, 2016 - Dec 31, 2026
<i>Navigation Protection Act</i>	Authorization for Site Preparation Activities (13 components)	Sep 30, 2015 – Dec 31, 2023
<i>Navigation Protection Act</i>	Moberly River Debris Boom-Peace River	Jul 27, 2016 – Dec 31, 2023
<i>Navigation Protection Act</i>	Right Bank Drainage Tunnel - Access Ramp-Peace River	Feb 2, 2016 - N/A
<i>Navigation Protection Act</i>	Dam, Spillway, Cofferdam, Diversion Tunnels, Generating Station, and Upstream Safety Boom	Jul 27, 2016 - N/A
<i>Navigation Protection Act</i>	Bridge Moberly River at Confluence Peace River	Jul 27, 2016 - N/A
<i>Navigation Protection Act</i>	Fish Habitat Compensation Structure RSEM L5 Peace River	Jul 27, 2016 - N/A
<i>Navigation Protection Act</i>	Fill RSEM R5A-Peace River	Jul 27, 2016 - N/A
<i>Navigation Protection Act</i>	Fill RSEM R6-Peace River	Jul 27, 2016 - N/A
<i>Navigation Protection Act</i>	Debris Boom Peace River	Jul 27, 2016 - N/A
<i>Navigation Protection Act</i>	Fill RSEM L6 Peace River	Jul 27, 2016 - N/A
<i>Navigation Protection Act</i>	Right Bank Log Boom for Water Intake	Feb 27, 2017 - N/A
<i>Heritage Conservation Act</i>	S.12 Alteration Permit	Jul 15, 2015 – Dec 31, 2023
<i>Heritage Conservation Act</i>	S.14 Inspection Permit	Jul 15, 2015 – Dec 31, 2023

<b>Act</b>	<b>Permit</b>	<b>Permit Duration</b>
<i>Heritage Conservation Act</i>	2014-0087 inspection amendment 001, 002, 003	Mar 15, 2017 – Dec 31, 2017
<i>Land Act</i>	Licence of Occupation (Dam Site Area) – General Industrial	Jul 7, 2015 – Jul 7, 2017
<i>Land Act</i>	Licence of Occupation for Public Safety Booms	Jul 7, 2015 – Jul 7, 2017
<i>Land Act</i>	Limited Licence of Occupation- Clearing	Jul 7, 2015 – Jul 7, 2017
<i>Land Act</i>	Licence of Occupation for Reservoir Slope Geotechnical Monitoring	Aug 25, 2016- Aug 25, 2026
<i>Land Act</i>	Limited Licence of Occupation for Halfway River Debris Boom (anchors and footprint)	Aug 25, 2016- Aug 25, 2018
<i>Agricultural Land Act</i>	Temporary and permanent removal of agricultural lands from the ALR	April 8, 2015 – Dec 31, 2024
<i>Water Act</i>	S.8 Short Term Use – Dam Site #1 (dust control, fire protection & truck washing)	Jul 7, 2015 – Jul 6, 2017
<i>Water Act</i>	S.8 Short Term Use – Dam Site #2 (work camps and processing)	Jul 7, 2015 – Jul 6, 2017
<i>Water Act</i>	Conditional Water License 132990 and 132991, and PCL (Permit over Crown Land) 28283	Feb 26, 2016 – Feb 26, 2056
<i>Water Act</i>	S.10 Short Term Use – Work Camp Water Supply	July 27, 2016- July 26, 2018
<i>Water Sustainability Act</i>	S.10 Short Term Use – Moberly River Ice Crossings	Dec 8, 2016 – April 30, 2018
<i>Water Sustainability Act</i>	S.11 Boucher Lake Road Culvert Replacement	Mar 7, 2017 – August 31, 2017
<i>Wildlife Act</i>	Removal of Eagle Nests	2015 - 2022
<i>Wildlife Act</i>	Removal of Beaver Dams – Construction	2015 - 2022
<i>Wildlife Act</i>	Capture and Relocation of Wildlife - Fish Salvage and Relocation for MCW Construction	June 30, 2016- Dec 31, 2023
<i>Wildlife Act</i>	Scientific Fish Collection Permit - Fish Stranding Monitoring Program	June 30, 2016- Dec 31, 2023
<i>Wildlife Act</i>	Amphibian and Reptile Salvage - capture and relocate amphibians and reptile	June 30, 2016 – Dec 31, 2023
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 6) – Halfway River Debris Boom Anchors	Aug 25, 2016- Aug 24, 2021
<b>Highway 29 Realignment</b>		
<i>Land Act</i>	Limited Licence of Occupation – Cache Creek - Investigations - survey and geotechnical drilling	June 20, 2016 - June 20, 2018
<i>Water Sustainability Act</i>	S. 11 Approval - Cache Creek – Cache Creek – Investigations	June 20, 2016 - April 30, 2017
<i>Forest Act</i>	S.52 Authority to harvest Crown Timber – Cache Creek	June 20, 2016 - June 20, 2017



<b>Act</b>	<b>Permit</b>	<b>Permit Duration</b>
<i>Forest Act</i>	Occupant Licence to Cut 10 – Halfway River Geotechnical Investigations	Sept 8, 2016- Sept 7, 2018
<i>Land Act</i>	Limited Licence of Occupation – Halfway River Geotechnical Investigations	Sept 8, 2016- Sept 8, 2018
<i>Water Sustainability Act</i>	S. 11 Approval – Halfway River – Geotechnical Investigations	Sept 8, 2016- April 30, 2017
<b>NORTH BANK</b>		
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 4) – North Bank	Jul 7, 2015 – Jul 6, 2017
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 5) - RSEM L3 (And S.91 Forest and Range Practices Act Exemptions)	Jul 7, 2015 – Jul 6, 2020
<i>Land Act</i>	Licence of Occupation (RSEM L3 Ravine) – General Industrial	Jul 7, 2015 – Jul 7, 2025
<b>SOUTH BANK</b>		
<i>Land Act</i>	Licence of Occupation (Area A) – Aggregates and Quarry	Jul 7, 2015 – Jul 7, 2017
<i>Land Act</i>	Licence of Occupation (Area A) – amended	Mar 27, 2017 – Jul 7, 2025
<i>Water Act</i>	S.9 Approval for Septimus Road, Septimus Siding, and Laydown Area 30 (extended)	Jul 7, 2015 – Aug 15, 2017
<i>Water Act</i>	S.9 Approval for Moberly Clearing Abutment Bridge	Aug 1, 2015 – Apr 30, 2017
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 1) – South Bank (and S.91 Forest and Range Practices Act Exemptions)	Jul 7, 2015 – Jul 6, 2017
<b>DEL RIO PIT</b>		
<i>Mines Act</i>	Mines Act Permit & Notice of Work - Del Rio Pit	Mar 29, 2016 – Mar 29, 2021
<i>Land Act</i>	Licence of Occupation - Aggregates and Quarry	Mar 15, 2016 – Mar 15, 2021
<b>PORTAGE MOUNTAIN QUARRY</b>		
<i>Land Act</i>	Licence of Occupation – Portage Mountain Quarry	Feb 18, 2016 – Feb 18, 2026
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 3) - Portage Mountain Quarry	Mar 11, 2016 - Mar 10, 2021
<i>Water Act</i>	S.10 Approval - Portage Mountain Quarry	Mar 15, 2016 – Dec 31, 2017
<b>WEST PINE QUARRY</b>		
<i>Land Act</i>	Licence of Occupation - West Pine Quarry	Jul 7, 2015 – Jul 6, 2025
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 12) - West Pine Quarry	Dec 9, 2016- Dec 8, 2021
<i>Mines Act</i>	Mines Act Permit & Notice of Work – West Pine Quarry	Dec 15, 2016 - Dec 31, 2022

<b>Act</b>	<b>Permit</b>	<b>Permit Duration</b>
<i>Water Sustainability Act</i>	S. 10 Short Term Use Approval – West Pine Quarry	Dec 9, 2016- Dec 31, 2018
<b>WUTHRICH QUARRY</b>		
<i>Mines Act</i>	Mines Act Permit & Notice of Work – Wuthrich Quarry	Jul 24, 2015 - Dec 21, 2021
<b>TRANSMISSION AND DISTRIBUTION</b>		
<i>Forest Act</i>	S. 52 Authority to harvest timber - Ice Bridge 3 Road	Nov 18, 2016 - Dec, 2022
<i>Forest Act</i>	Occupant Licence to Cut – Transmission Line	Oct 21, 2016 – Oct 10, 2021
<i>Land Act</i>	Licence of Occupation – PCN Connection	Oct 21, 2016 – Oct 10, 2018
<i>Land Act</i>	Licence of Occupation – South Bank Slope	Oct 21, 2016 – Oct 10, 2026
<i>Land Act</i>	Licence of Occupation – One Time Clearing along Transmission Line	Oct 21, 2016 – Oct 10, 2018
<i>Forest Act</i>	S.52 Authority to harvest timber – Transmission Line Security Trees	Feb 24, 2017 – Oct 10, 2021
<b>RESERVOIR</b>		
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 6) - South Bank Eastern Reservoir	Dec 12, 2016 – Dec 11, 2021
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 7) - North Bank Eastern Reservoir	Dec 12, 2016 – Dec 11, 2021
<i>Forest Act</i>	Occupant Licence to Cut (OLTC 8) - South Bank Access Eastern Reservoir	Dec 12, 2016 – Dec 11, 2021
<i>Land Act</i>	Licence of Occupation – Eastern Reservoir	Dec 12, 2016 – Dec 11, 2018

## Environmental Management and Protection Plan Submissions

Table 2 provides a summary of the environmental management and protection plans submitted for BC Hydro's review and approval during March 2017.

**Table 2. Environmental Management (EMP) and Protection Plans (EPP) Submitted for BC Hydro's Review and Approval During March 2017.**

Contractor	EMP or EPP	Date Received
To Be Determined	Bear Flat – Cache Creek Highway Re-alignment Clearing BCH Owned Land EPP Rev 2	Mar 16
To Be Determined	Bear Flat – Cache Creek Highway Re-alignment Clearing Crown Land EPP Rev 5	Mar 16
To Be Determined	Highway 29 Grading and Paving EPP Rev 0	Mar 18
4Evergreen	Transmission Line – Phase A EPP Rev 4	Mar 20
All Peace	Old Fort Road Fence Construction EPP Rev 1	Mar 13
All Peace	Old Fort Road Fence Construction EPP Rev 2	Mar 29
Atco	Worker Accommodation and Water Intake EPP Rev 8	Mar 8
Hemmera	Wildlife Monitoring EPP Rev 1	Mar 22
Kerr Wood Leidal	Hudson's Hope Shoreline Protection Geotechnical Investigations EPP Rev 0	Mar 2
Kerr Wood Leidal	Hudson's Hope Shoreline Protection Geotechnical Investigations EPP Rev 2	Mar 30
Northwest Hydraulics	Halfway River Debris Boom Geotechnical Investigation EPP Rev 1	Mar 14
Petro West	Blind Corner and River Road Remediation EPP Rev 4A	Mar 14
PRHP	Area 23 Temporary PAG Stockpile EPP Rev 4	Mar 3
PRHP	Left Bank Global Instability EPP Rev 0	Mar 9
PRHP	Substation Area EPP Rev 1	Mar 14
PRHP	Left Bank Transmission Line EPP Rev 0	Mar 15
PRHP	Area 30 EPP Rev 0	Mar 16
PRHP	Approach Channel (Phases 1 and 2) Overburden Excavation Rev 3	Mar 17
PRHP	Left Bank Global Instability EPP Rev 1	Mar 18
PRHP	Environmental Management Plan Rev 8	Mar 18
PRHP	Right Bank Water Intake EPP Rev 1	Mar 20
PRHP	Left Bank Excavation EPP Rev 9	Mar 21
PRHP	Diversion Inlet Works (Portal and Channel Construction) EPP Rev 1	Mar 24
PRHP	Right Bank Water Intake EPP Rev 2	Mar 29
PRHP	Wuthrich Quarry EPP Rev 4	Mar 29
PRHP	Moberly River Debris Boom EPP Rev 1	Mar 30
PRHP	Foundation Preparation and RCC Placement EPP Rev 1	Mar 31
RF Binnie	Highway 29 Halfway River Geotechnical Investigations EPP Rev 2	Mar 23
Voith Hydro	On-Site Manufacturing EPP Rev 3	Mar 16

## Environmental Monitoring Report Submissions

Table 3 provides a summary of the contractor-prepared environmental monitoring reports submitted for BC Hydro's information during March 2017.

**Table 3. Contractor-prepared Environmental Monitoring Reports Submitted for BC Hydro's Information during March 2017.**

Contractor	Report
4Evergreen	Environmental monitoring report for Mar 19-25, 2017
ATCO	Environmental monitoring report for March 2017
PetroWest	Environmental monitoring report for Mar 6-12, 2017
PetroWest	Environmental monitoring report for Mar 13-19, 2017
PetroWest	Environmental monitoring report for Mar 20-26, 2017
PetroWest	Environmental monitoring report for Mar 27 – Apr 2, 2017
Peace River Hydro Partners (PRHP)	Environmental monitoring report for Feb 26 - Mar 4, 2017
PRHP	Environmental monitoring report for Mar 5-11, 2017
PRHP	Environmental monitoring report for Mar 12-18, 2017
PRHP	Environmental monitoring report for Mar 19-25, 2017
PRHP	Environmental monitoring report for Mar 26 - Apr 1, 2017

## Environmental Monitoring and Compliance Auditing

The Project's CEMP specifies the roles and responsibilities of Contractors, BC Hydro, and the Independent Environmental Monitor (IEM) during construction. Contractors appoint qualified environmental professionals and environmental monitors to assist with the identification, management, resolution and reporting of environmental management issues during construction activities. BC Hydro conducts field inspection audits to evaluate contractors' compliance with the environmental requirements specified within approved regulatory permits, the CEMP and EPPs, and to determine whether implemented mitigation measures are effective and functioning as intended. The IEM also conducts field inspection audits to evaluate contractors' compliance with the Project's environmental requirements.

Environmental issues that are identified and managed during construction activities are described in reports prepared by contractors' environmental monitors, by BC Hydro's Natural Resource Specialists and by the IEM.

A non-conformance event is defined as a construction activity conducted in a manner that deviates from a best management practice, compliance with which is required in the EPP for that particular construction activity. A non-compliance event is a construction activity conducted in a manner that deviates from a legal condition in a permit, an enactment, or a regulation, compliance with which is required in the EPP.

Examples of environmental management issues reported during March 2017 are presented in Table 4. During the reporting period there were 64 recorded minor hazardous material spills.

**Table 4. Summary of Reported Environmental Management Issues During March 2017.**

Reported By	Environmental Issue	Description of Environmental Issue	Implemented or Recommended Corrective Actions	Compliance Status as of Mar 31
<b>MAIN CIVIL WORKS</b>				
IEM 1844	Erosion and Sediment Control	Erosion of slope at RSEM Area L3 diversion culvert outlet.	Repair slope erosion at the outlet and prevent further sediment mobilization.	Closed
IEM 2939 and 2940	Erosion and Sediment Control	Sediment fences surrounding the topsoil stockpile and a wetted area (south and adjacent to covered PAG stockpile) at Howe Pit are not in functional condition (CEMP 4.4, 4.5, 4.12).	Repaired sediment fencing surrounding topsoil stockpile to avoid sediment mobilization.	Closed
IEM 2946	Land Disturbance	Approximately 400m of non-status road was cleared adjacent to Medicine Woman Road without appropriate approvals in place for this specific area.	Confirmed which environmental features may have been impacted by the works and that FLNRO requirements have been addressed	Closed
IEM 2999	Surface Water Management	Water originating from Garbage Creek was not contained as intended by the upstream isolation and diversion structure, which subsequently resulted in flows into an RSEM L5 starter dike cell (CEMP S. 4.14, RSEM Area L5 EPP 6.2 rev.2)	Provide water quality monitoring data includes the receiving environments outside of the RSEM L5 area. Provide update on intended mitigation measures/improvements for Garbage Creek diversion.	Closed
IEM 3011	Surface Water Management	Water was not adequately contained within the L3 watercourse as a result of a diversion containment breach, resulting in a potentially sediment laden discharge to the stream and Peace River (CEMP S. 4.14, RSEM Area L3 Care of Water Plan 2.3 rev.3).	Provide water quality monitoring data that includes the receiving environments.	Closed

IEM 3030	Surface Water Management	The culvert within the Garbage Creek sump (located at the downhill end of the capped PAG material) was not isolated, presenting the potential to convey water out of RSEM area L5 (CEMP Appendix E S 5.0).	Plugged culvert within the Garbage Creek sump to meet low permeability standards.	Closed
IEM 3049	Water Quality Management	Water quality monitoring results provided indicated water quality guidelines (CEMP Section 4.14) were exceeded within the L3 watercourse.	No further action required.	Closed
IEM 3050	Water Quality Management	PAG contact water flooded out into the road fill area.	Implemented water management mitigation measures described in EPP.	Closed
IEM 3058	Fisheries Management	Fish screens employed within the fish bearing sells of the L5 did not meet requirements of DFO guidelines for anguilliform species.	Screens replaced to achieve DFO guidelines for anguilliform species.	Closed
IEM 3064	Erosion Prevention and Sediment Control Management	Pack tracking was conducted parallel rather than perpendicular to slope.	Confirm that crews were aware of appropriate tracking practices.	Open
IEM 3075	Water Quality Management	Release of contact surface water from Howe Pit into the Peace River.	Contained surface water and installed measures to mitigate pooling of water within Howe Pit.	Closed
IEM 3098	Water Quality Management	Care of Water plan for the left bank area (Phases 1 and 2) had not been revised to reflect changes in the construction approach.	Provide IEM with revised Care of Water Plan.	Open

IEM 3104 and 3105	Water Quality Management	Measures were ineffective at preventing / minimizing turbid water within the ditch from Blind Corner down to the unnamed creek 9L3) and discharge of the turbid flow in the Peace River.	Provide confirmation that ESC measures within the ditch and surrounding area are installed and functioning so as to prevent / minimize turbid water from entering the Peace river. Additionally, provide any available water quality data from L3, L4, and the Peace River to demonstrate compliance with BC Water Quality guidelines.	Open
IEM 3111	Water Quality Management	Water collecting on the haul road crossing at the proprietary culvert location was pumped to a location that allowed water to flow back in the unnamed creek/L3 drainage.	Managed turbid water effectively.	Closed
IEM 3120	Spill Prevention and Response	Spill prevention measures not in place to prevent leaks to ground and sump from pump and the temporary Moberly River bridge.	Confirm that contaminated water did not enter RSEM R5b sediment pond.	Open
IEM 3124	Water Quality Management	RSEM area R5b pond water exceeded water quality end-of-pipe limits for TSS (total suspended solids) when discharged to the Peace River.	Provide an Exceedance Response Plan as described in CEMP Appendix E, Section 7.4.2.	Open
IEM 3125	Water Quality Management	RSEM area R5b pond water exceeded water quality end-of-pipe limits for total zinc when discharged to the Peace River.	Provide an Exceedance Response Plan as described in CEMP Appendix E, Section 7.4.2.	Open
IEM 3129	Water Quality Management	Surface water was not retained on site at Area A, contrary to commitments in the EPP.	Manage surface waters in accordance with the EPP.	Open
IEM 3140	Waste Management	The culvert within the Garbage Creek sump was not isolated, providing the potential to convey water out of RSEM area L5.	Manage contact water in accordance with CEMP.	Open



IEM 3142	Waste Management	Waste management measures were not wildlife proof at RSEM area L5.	Confirm that garbage and recycling bins are in place capable of deterring wildlife.	Open
IEM 3151	Water Quality Management	Non-contact water was not diverted around the work area, but was diverted into the RSEM area R5b pond.	Manage non-contact water in accordance with the EPP.	Open
IEM 3152	Erosion Prevention and Sediment Control Management	No erosion and sediment control measures in the non-contact water drainage channel leading to RSEM area r5b.	Install appropriate measures to reduce/minimize erosion and sedimentation potential.	Open
IEM 3155	Water Quality Management	Isolation and diversion structure at L4 watercourse was not functioning to contain and appropriately divert flow and increased erosion and sedimentation potential.	Provide confirmation that the isolation and diversion structure is functioning so as to protect surface water quality or removed.	Open
IEM 3156	Water Quality Management	Lack of surface water management upslope led to slope erosion and gulley erosion upslope of road east of L3 crossing.	Install permanent surface water management measures to prevent further erosion and sedimentation.	Open
IEM 3136	Erosion Prevention and Sediment Control Management	Check dams were not functioning as described in the CEMP.	Manage water and erosion/sedimentation structures in accordance with CEMP.	Open



## **Upcoming Construction Activities**

The following construction activities are planned to occur during April 2017:

- Continue excavation of Left Bank.
- Complete infilling RSEM Area L3.
- Complete construction of L3 diversion channel.
- Continue curtain grouting of Right Bank Cofferdam guide walls.
- Continue drainage tunnel excavation
- Continue placing excavated material into RSEM 5a.
- Continue excavation of Approach Channel phase 1.

## Closure

Submitted by BC Hydro for the Site C Clean Energy Project.

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### Distribution List:

**BC Hydro:** [REDACTED]

**Independent Environmental Monitor:** [REDACTED] (EDI)

**Regulators:** [REDACTED] (EAO), [REDACTED] (EAO), [REDACTED] (MFLNRO), [REDACTED] (MFLNRO), [REDACTED] (CEAA), [REDACTED] (CEAA)

### Aboriginal Groups:

Blueberry River First Nations

Dene Tha' First Nation

Doig River First Nation

Duncan's First Nation

Fort Nelson First Nation

Halfway River First Nation

Horse Lake First Nation

Kelly Lake Métis Settlement Society

McLeod Lake Indian Band

Métis Nation BC

Prophet River First Nation

Saulteau First Nations

West Moberly First Nation