



Upper Lillooet Hydro Project

Weekly Environmental Monitoring Report #30

Reporting Period: July 13th – July 19th, 2014

Upper Lillooet River Hydroelectric Facility (Water File No. 2002561, Water licence No. C130613),
Boulder Creek Hydroelectric Facility (Water File No. 2003049, Water licence No. C129969) &
Transmission Line (TX Line)

Distribution List		Prepared By
Name	Organization	
Trevor Andrews	Fisheries and Oceans Canada	 J. Alex Sartori, RPBio Independent Environmental Monitor (IEM)
James Davies	MFLNRO – Water Allocation	
Danielle Cunningham	MFLNRO – Land and Resources	
Frank DeGagne	MFLNRO – Land and Resources	
Nathan Braun	BC Environmental Assessment Office	
George Steeves	True North Energy – Independent Engineer	
Jennifer McCash	True North Energy – Independent Engineer	
Thomas Hicks	Sartori Environmental Services	
Peter Ramsden	Innergex Renewable Energy Inc.	
Oliver Robson	Innergex Renewable Energy Inc.	
Greg Davis	Innergex Renewable Energy Inc.	
Julia Mancinelli	Innergex Renewable Energy Inc.	
Jackie Boruch	Innergex Renewable Energy Inc.	
Liz Scroggins	Innergex Renewable Energy Inc.	
Bas Brusche	Innergex Renewable Energy Inc.	
Matt Kennedy	Innergex Renewable Energy Inc.	
Renaud DeBatz	Innergex Renewable Energy Inc.	
Richard Blanchet	Innergex Renewable Energy Inc.	
Claude Denault	CRT-ebc Construction Inc.	
Jonathan Drapeau	CRT-ebc Construction Inc.	
Éric Ayotte	CRT-ebc Construction Inc.	
Jordan Gagne	CRT-ebc Construction Inc.	
Ian McKeachie	CRT-ebc Construction Inc.	
D'Arcy Soutar	Westpark Electric Ltd.	 J. Stephen Sims, RPBio Delegated IEM
Pontus Lindgren	Westpark Electric Ltd.	
Harriet VanWart	Lil'wat Nation	
		Date Prepared: August 13, 2014 Date Submitted: August 15, 2014

Owner Construction Permits and Approvals

Environmental Assessment Certificate No.E13-01 (Amendment 1, 2, 3 & 4)
Fisheries Act Subsection 35(2)(b) Authorization No. 09-HPAC-PA2-000303 (Amendment 1)
Letter of Advice for the Transmission Line No. 09-HPAC0-PA2-000303
Leave To Commence Construction (ULRHEF) File No. 2002561
Leave To Commence Construction (BDRHEF) File No. 2002453
Leave To Commence Construction (TX Line) File No. 2002561/2002453
Conditional Water Licence (ULRHEF C130613) File No. 2002561
Conditional Water Licence (BDRHEF C129969) File No. 2002453
Conditional Water Licence (BDRHEF C131153) File No. 2003601
Licence of Occupation (ULRHEF #232384) File No. 2409871
Licence of Occupation (BDRHEF #232386) File No. 2409998
Licence of Occupation (TX Line #2423386) File No. 2410654
Occupant Licence to Cut (ULRHEF Amendments 1, 2, 3) No. L49717
Occupant Licence to Cut (BDRHEF – km 38 laydown) No. L49698
Occupant Licence to Cut (BDRHEF Amendments 1, 2) No. L49816
Occupant Licence to Cut (TX Line Amendment 1, 2, 3) No. L49697
General Wildlife Measure Exemption Approval Letter (TX Line & BDRHEF) File No. 78700-35/06 UWR and 39585-20 WHA
Heritage Conservation Act – Alteration Permit (ULRHEF) File No. 11200-03/2014-0033
Road Use Permit No. 6123-13-02 (Lillooet River FSR); 5673-13-01 (Rutherford Creek FSR); 7977-13-01 (Lillooet South FSR); 8015-13-01 (Ryan River); 8188-13-01 (Pemberton Creek FSR); and 9717-13-01 (Miller Bench FSR)
Junction Permit (ULRHEF & BDRHEF) File No. 11250-32/6123 (Amendment 1)
Aeronautical Obstruction Approval (Tx Line - Lillooet River Crossing) File No. 2013-004
Aeronautical Obstruction Approval (Tx Line - Ryan River) File No. 2013-005
Aeronautical Obstruction Approval (Tx Line - North Miller) File No. 2013-006
Aeronautical Obstruction Approval (Tx Line - South Miller) File No. 2013-007
Aeronautical Obstruction Approval (Tx Line - Pemberton Creek) File No. 2013-008
Aeronautical Obstruction Approval (Tx Line - Lillooet River near Pemberton) File No. 2013-009
Aeronautical Obstruction Approval (Tx Line - Lillooet River near Meager Creek) File No. 2013-010
Navigable Water Protection Act (ULRHEF) File No. 8200-2009-500434-001
Navigable Water Protection Act (BDRHEF) File No. 8200-2012-501-032-001
Navigable Water Protection Act (Tx Line – North Creek) File No. 8200-2013-500103-001
Navigable Water Protection Act (Tx Line – Lillooet River) File No. 8200-2013-500101-001
Navigable Water Protection Act (Tx Line – Lillooet River) File No. 8200-2013-500102-01
Navigable Water Protection Act (Tx Line – Ryan River) File No. 8200-2013-500104-001
Navigable Water Protection Act (Tx Line – South Miller River) File No. 8200-2013-500100-001
Navigable Water Protection Act (Tx Line – Boulder Creek) File No. 8200-2013-500099-001
Navigable Water Protection Act – Extension Approval (ULRHEF, BDRHEF, Tx Line)
Navigable Water Protection Act (Bridge – Ryan River) File No. 8200-2013-500381
Navigable Water Protection Act (Bridge – Upper Lillooet Side Channel; Extension Approval) File No. 8200-2013-500383
Section 57 Authorization (ULRHEF) File No. 16660-20/REC202717
SLRD Temporary Use Permit No. 34 – Boulder Creek HEF
SLRD Temporary Use Permit No. 35 – Upper Lillooet River HEF
Works Permit for Construction within FSR Right-of-Way No. 6123-14-01
Section 52(1)(b) FRPA Authorization for Ryan River Wet Crossing File No. FOR-19400-01/2014

Contractor Construction Permits and Approvals

Magazine Licence File No. UL76018

Section 8 Approval – Short Term Use of Water File (Lillooet River and Tributaries) No.A2006123 (Amendment 1)

Waste Discharge under the Code of Practice for the Concrete and Concrete Products Industry under the Environmental Management Act (Authorization No. 107204) Tracking No. 326969

Wildlife Act Permits – Pacific Tailed Frog Salvage Permit # SU14-95304 &SU13-90538, Fish Salvage Permit # SU14-95329

Section 52 of the Fisheries (General) Regulations – Fish Salvage Licence #XR 139 2014

BC Safety Authority – Temporary Construction Electrical Service Permit EL-140698-2014

Municipal Wastewater Regulation - Authorization # 107032

Water Supply System Construction Permits –VCH-14-613 for Construction Camp

Water Supply System Permit to Operate Issued July 30th, 2014 for Construction Camp

ACRONYMS:

AMBNS	Active Migratory Bird Nesting Survey
ASMP	Archaeological Sites Management Plan
ARD/ML	Acid Rock Drainage and Metal Leaching
BCEAO	British Columbia Environmental Assessment Office
BCWQG	British Columbia Water Quality Guidelines
BDRHEF	Boulder Creek Hydroelectric Facility
BG	Background
BKL	BKL Consultants Ltd.
CRT-ebc	CRT-ebc Construction Inc.
DFO	Fisheries and Oceans Canada
DS	Downstream
Ecofish	Ecofish Research Ltd.
Ecologic	Ecologic Consulting
EDI	Environmental Dynamics Inc.
EIR	Environmental Incident Report
ESC	Erosion and Sediment Control
FAM	Field Advice Memorandum
FSR	Forest Service Road
GWR	Mountain Goat Winter Range
Hedberg	Hedberg and Associates Ltd.
IE	Independent Engineer (True North Energy)
IEM	Independent Environmental Monitor
Innergex	Innergex Renewable Energy Inc.
ITM	Environmental Issue Tracking Matrix
JEM	JEM Energy Ltd. (Delegate Independent Engineer)
LTC	Leave to Construct
MFLNRO	Ministry of Forests, Lands and Natural Resource Operations
MOE	Ministry of Environment
NCD	Non Classified Drainage
PAG	Potentially Acid Generating
RVMA	Riparian Vegetation Management Area
SES	Sartori Environmental Services
TX Line	Transmission Line
ULRHEF	Upper Lillooet River Hydroelectric Facility
UWR	Ungulate Winter Range
VC	Valued Component
WQ	Water Quality
WEL	Westpark Electric Ltd.
WEMR	Weekly Environmental Monitoring Report

1.0 Summary of Site Inspections for Reporting Period

The table presented below summarizes the IEM team site presence, weather and monitoring locations by component:

Date	IEM Team Personnel	Weather Conditions	Monitoring Locations & Key On-site Environmental Information
Sunday July 13	-	-	-
Monday July 14	MS,VD	Sun and Cloud	<p>Construction Camp</p> <ul style="list-style-type: none"> • Sewer and water line installation • Camp facility installation <p>BDRHEF Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and stabilization of the tunnel • Seepage from tunnel pumped from sump at portal entrance into sediment ponds <p>BDRHEF Intake Access Road</p> <ul style="list-style-type: none"> • Excavation, drilling and blasting of the new section of the access road <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Closed due to landslide risk – no construction activities <p>ULRHEF Downstream Portal</p> <ul style="list-style-type: none"> • Tunnel portal overburden excavation, and mesh installation for protection against falling rocks. <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Powerhouse excavation • Drilling and blasting of large boulders <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 4 – hand clearing in Stream 80A RVMA • Segment 7 – road works • Segment 10 – timber management and road works
Tuesday July 15	MS,VD	Sun and Cloud	<p>Construction Camp</p> <ul style="list-style-type: none"> • Sewer and water line installation • Camp facility installation <p>BDRHEF Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and stabilization of the tunnel • Seepage from tunnel pumped from sump at portal entrance into sediment ponds <p>BDRHEF Intake Access Road</p> <ul style="list-style-type: none"> • Excavation, drilling and blasting of the new section of the access road <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Closed due to landslide risk – no construction activities <p>ULRHEF Downstream Portal</p> <ul style="list-style-type: none"> • Tunnel portal overburden excavation, and mesh installation for protection against falling rocks. <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Powerhouse excavation • Drilling and blasting of large boulders <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 4 – hand clearing in Stream 80A RVMA • Segment 7 – road works • Segment 10 – timber management and road works

Date	IEM Team Personnel	Weather Conditions	Monitoring Locations & Key On-site Environmental Information
Wednesday July 16	TH	Sun and Cloud	<p>Construction Camp</p> <ul style="list-style-type: none"> • Sewer and water line installation • Camp facility installation <p>BDRHEF Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and stabilization of the tunnel • Seepage from tunnel pumped from sump at portal entrance into sediment ponds <p>BDRHEF Intake Access Road</p> <ul style="list-style-type: none"> • Excavation, drilling and blasting of the new section of the access road <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Closed due to landslide risk – no construction activities <p>ULRHEF Downstream Portal</p> <ul style="list-style-type: none"> • Tunnel portal overburden excavation, and mesh installation for protection against falling rocks. <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Powerhouse excavation • Drilling and blasting of large boulders <p>TX-Line</p> <ul style="list-style-type: none"> • No activities
Thursday July 17	TH,VD	Sun and Cloud	<p>Construction Camp</p> <ul style="list-style-type: none"> • Sewer and water line installation • Camp facility installation <p>BDRHEF Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and stabilization of the tunnel • Seepage from tunnel pumped from sump at portal entrance into sediment ponds <p>BDRHEF Intake Access Road</p> <ul style="list-style-type: none"> • Excavation of the new section of the access road <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Closed due to landslide risk – no construction activities <p>ULRHEF Downstream Portal</p> <ul style="list-style-type: none"> • Tunnel portal overburden excavation, and mesh installation for protection against falling rocks. <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Powerhouse excavation • Drilling and blasting of large boulders <p>TX-Line</p> <ul style="list-style-type: none"> • No activities
Friday July 18	VD	Overcast	<p>Construction Camp</p> <ul style="list-style-type: none"> • Sewer and water line installation • Camp facility installation <p>BDRHEF Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and stabilization of the tunnel • Seepage from tunnel pumped from sump at portal entrance into sediment ponds <p>BDRHEF Intake Access Road</p> <ul style="list-style-type: none"> • Excavation of the new section of the access road <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Closed due to landslide risk; no construction <p>ULRHEF Downstream Portal</p> <ul style="list-style-type: none"> • Tunnel portal overburden excavation, and mesh installation for protection against falling rocks. <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Powerhouse excavation • Drilling and blasting of large boulders <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 5 – pole installation works

Date	IEM Team Personnel	Weather Conditions	Monitoring Locations & Key On-site Environmental Information
Saturday July 19	ML, VD	Overcast, light rain	<p>Construction Camp</p> <ul style="list-style-type: none"> Sewer and water line installation Camp facility installation <p>BDRHEF Tunnel Portal</p> <ul style="list-style-type: none"> Drilling, blasting and stabilization of the tunnel Seepage from tunnel pumped from sump at portal entrance into sediment ponds <p>BDRHEF Intake Access Road</p> <ul style="list-style-type: none"> Excavation of the new section of the access road <p>ULRHEF Intake</p> <ul style="list-style-type: none"> Closed due to landslide risk – no construction activities <p>ULRHEF Downstream Portal</p> <ul style="list-style-type: none"> Tunnel portal overburden excavation, and mesh installation for protection against falling rocks. <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> Powerhouse excavation Drilling and blasting of large boulders <p>TX-Line</p> <ul style="list-style-type: none"> Segment 4 & 5 – pole installation works

IEM Team Personnel: MS – Mandala Smulders; TH – Tom Hicks; VD – Vanessa Dan

2.0 Administrative Summary

Key communications and meetings the IEM team had with the licensees, contractors and/or environmental authorities:

Date	Communication Type	Participants	Issues Discussed	ITM ID No.
July 16	<i>Email correspondence</i>	<i>SES, CRT-ebc, Innergex</i>	<ul style="list-style-type: none"> Submission of the Caliber Bridge & Design Inc. wood box culvert assessment report. This report satisfies the requirement for QP assessment of the Lillooet River FSR crossing structures. Additional recommendations outlined in the report are discussed in Section 4.4. 	<i>ULR# 4,7,8, & 10</i>
July 17	<i>Email correspondence</i>	<i>SES, CRT-ebc, Innergex</i>	<ul style="list-style-type: none"> Submission of FAM#02 and FAM#03. These Field Advice Memos were submitted to request that CRT-ebc clarify the plan and timeline to address the outstanding requirement to provide additional dust control measures on the Lillooet River FSR (<i>ULR#12</i>), and to confirm the plan and timeline for the implementation of the Caliber Bridge and Design Inc. recommendations (<i>ULR#4 & 8</i>). 	<i>ULR# 4, 8, & 12</i>
July 19	<i>Email correspondence</i>	<i>SES, CRT-ebc, Innergex</i>	<ul style="list-style-type: none"> CRT-ebc submitted a response to FAM#02 confirming that dust control product (Lignosulfonate) application will begin on July 22nd, 2014 (<i>ULR #12</i>). In response to FAM#03, CRT-ebc confirmed that the wood box crossing structures at 39.7km and 47km of the Lillooet River FSR will be 	<i>ULR# 4, 8, & 12</i>

Date	Communication Type	Participants	Issues Discussed	ITM ID No.
			remediated/replaced during the 2014 instream work window, following work plan generation and approval. The remaining crossing structures assessed in the Caliber Bridge and Design Inc. report will be monitored regularly by CRT-ebc to ensure they are not compromised during high flows in the short term as recommended in the report (ULR #4 & 8).	

3.0 Current Work Restrictions and Timing Windows

The table presented below outlines work restrictions applicable during the reporting period for each active Project component location:

Component	Location	Wildlife/Archeology Concern	Construction/Timing Restrictions & Mitigations
ULRHEF, BDRHEF, and Tx Line	All ULRHEF, BDRHEF, and Tx Line areas	Nesting Birds	<i>Vegetation clearing must take place outside of the breeding bird season (May 1 – July 31) to prevent disturbance of bird nests. If not feasible, nest surveys must be conducted by qualified professionals following the Active Migratory Bird Nest Surveys prior to clearing and protective buffers surrounding discovered nests will be maintained until young are fledged and approval has been obtained from the IEM or designate.</i>
Tx-Line	Segments 1 – 7, & 9-10	Suitable Raptor Nesting Habitat	<i>IEM presence is required when clearing within suitable Northern Goshawk (NOGO), Spotted Owl (SPOW), and Western Screech-Owl (WESO) nesting habitat during the breeding period. A nest survey is required by WEL QPs prior to clearing within 600m of suitable Peregrine Falcon (PEFA) nesting habitat.</i>
		Within 150m of wetlands or 100m of Coastal Tailed-Frog Streams	<i>IEM presence is required when clearing within 150m of wetlands or 100m of Coastal Tailed-Frog Streams, to ensure clearing area is minimized.</i>
		Old Growth Management Areas (OGMAs)	<i>IEM monitoring is required when clearing within legally designated OGMAs, to ensure clearing area is minimized.</i>
		Ungulate Winter Range (UWR)	<i>IEM monitoring is required when clearing within identified deer and moose UWR, to ensure clearing area is minimized.</i>
		Suitable Class 1 & 2 Grizzly Bear forage habitat	<i>IEM monitoring is required when clearing within identified Class 1 & 2 Grizzly Bear forage habitat, to ensure clearing area is minimized.</i>

Component	Location	Wildlife/Archeology Concern	Construction/Timing Restrictions & Mitigations
ULRHEF powerhouse, and Intake diversion channel	Within 50m of identified archeologically significant area	Archaeologically significant site EdRu-3	The ASMP recommends that an archaeological technician from the Lil'wat Nation be present to monitor initial ground-disturbance activities within 50 m of the EdRu-3 site boundaries.
	Within 30m of the Upper Lillooet River	Riparian area and fish bearing streams	IEM presence is required when working within 30m of the Upper Lillooet River. Instream acoustic pressure monitoring required when blasting within 30m of the Upper Lillooet River.
Lillooet River FSR; ULRHEF intake access; FSR realignment at Truckwash Creek	Access roads above the lower limit of the 200m buffer Truckwash Creek Migration Corridor to the ULRHEF intake; including FSR realignment at Truckwash Creek	Mountain Goat UWR	If a goat is observed within 500 m of construction operations, construction must cease for at least 48 hours. The IEM must record and submit all goat observations to FLNR within 48 hours.

4.0 Hydroelectric Facilities

4.1 Ancillary Components – Monitoring Results

Construction Camp

- Camp facility, electric fence and utility installation continued. No environmental concerns were noted.

38km Laydown

- Material crushing and screening plant operation continued this week. A watering hose was used effectively for dust control at the screening plant. No environmental concerns were noted.

4.2 Boulder Creek Hydroelectric Facility – Monitoring Results

BDRHEF Downstream Portal and Powerhouse Access Road

- Tunneling activities (including: drilling, blasting, excavation, rock bolts and shotcrete/mesh installation) continued.
- The settling ponds installed during the previous monitoring period were effectively used to manage water from seepages encountered during tunnelling activities and to manage excess process water this week. No discharge from the sediment ponds occurred this week, therefore no water quality samples were collected. Once the

powerhouse excavation begins these ponds will also be used to manage seepage from the base of the excavation in addition to the seepage/process water from the tunneling operations.

BDRHEF Intake Access Road

- Construction of the new section of the access road continued during this reporting period (Photo 1).
- Blasting of bedrock within the road alignment was completed using revised blasting mitigations as the use of blast mats was not feasible due to the steepness of the terrain.

Environmental Summary:

- Tunneling activities encountered seepage water during this monitoring period. The water flowed out of the tunnel, and was collected at the portal tunnel entrance in a sump. The water was then pumped from the sump to the oil/water separator, pH adjustment holding tank, and settlement ponds for treatment. The pH was monitored daily by the contractor and a CO₂ diffuser was used as necessary to ensure pH was within acceptable surface water quality guidelines (pH 6.5 – 9). No discharge from the treatment ponds occurred during this reporting period; therefore the IEM did not collect water quality results (Photo 2).
- Hydro-seeding of exposed slopes at the downstream tunnel portal face has not resulted in vegetation growth that will help to stabilize the slope. Additional hydro-seeding applications during appropriate weather conditions or other slope stabilization measures (e.g. poly sheeting, coco matting, etc.) may be required to ensure slopes are protected prior to fall rain events.
- Water from the Boulder Creek water withdrawal site authorized in the Short Term Water Use Approval (No.A2006123) was used effectively for dust suppression above 37.5km of the Lillooet River FSR and on active construction site access roads.
- The gravity fed water diversion system was used in tunneling and shotcrete process works in accordance with Short Term Water Use Approval (No.A2006123). No water quality or environmental concerns were noted.

Photos:



Photo 1. Construction of the BDR intake access road. (July 19, 2014).



Photo 2. Dewatering of seepage from the tunneling activities was performed this week but the water has not yet reached the second pond treatment pond (July 19, 2014).

Water Quality Results

Date	Time	Sample Location Description	pH	Turbidity (NTU)	Temperature (°C)
No WQ measurements were recorded at active BDRHEF work areas during this reporting period. Seepage water from tunneling activities was directed to the sediment ponds; however no discharge from the ponds occurred during this reporting period. Construction activities had no visual effect on WQ.					

4.3 Upper Lillooet River Hydroelectric Facility – Monitoring Results

ULRHEF Powerhouse and Access Road

- Excavation at the ULRHEF powerhouse continued this week (Photo 3). The excavated material was dumped within the limits of the powerhouse spoil area and suitable material was separated and hauled to the crushing/screening plant located near 38km of the Lillooet River FSR. Blasting of exposed boulders occurred July 14th-18th. Blasts mats were used and approved blasting mitigation measures were deployed.

ULRHEF Intake and Access Roads

- Access to the work area was closed from July 14th-19th due to elevated risk of a landslide.

ULRHEF Downstream Portal

- Excavation of the ULRHEF portal continued throughout the week. Once bedrock was exposed, hand scaling and the installation of chain link mesh was completed to protect workers from falling rock. Overburden spoil material was hauled to the lower spoil area. No environmental concerns were noted.

Environmental Summary:

- The IEM will continue to monitor run-off emanating from the PAG stockpile located at the Truckwash west heading and submitted water quality samples for lab analysis as soon as run-off from the pile is observed. Sampling will continue on a monthly basis according to the ARD/ML management plan. No seepage or surface run-off from this stockpile has been observed to date.

Photos:



Photo 3. Excavation of the ULRHEF powerhouse footprint (July 15, 2014).



Photo 4. Excavation and mesh installation at the ULRHEF downstream tunnel portal location (July 14, 2014).

Water Quality Results

Date	Culvert Location	Time	Sample Location Description	Turbidity (NTU)
No WQ measurements were recorded at active ULRHEF work areas during this reporting period. Construction activities had no visual effect on WQ.				

4.4 Hydroelectric Facilities – Recommendations

The results of the wood box culvert crossing assessment completed by Caliber Bridge & Design Inc. was communicated to the IEM in the form of an assessment report on July 16th, 2014. The report outlined the assessment of wood box crossing structures at 39.7km, 41.3km, 42.8km, and 46.5km of the Lillooet River FSR, as well as one crossing

along the Magazine Road. CRT-ebc has temporarily stabilized these crossing structures by adding road plates and road gravels to the tops of the existing structures and has confirmed that these crossings will be monitored regularly as recommended in the assessment report.

CRT-ebc has also confirmed that the failed crossing at 39.7km will be repaired and/or replaced, and the failed culvert at 47km will be remediated by removing debris from within the stream. This work will be completed during the 2014 instream work window following the preparation of a work plan and approval by MFLNRO.

Dust suppression between 0km and 37.5km on the Lillooet River FSR continues to be an issue. On July 19th, CRT-ebc confirmed that they will be applying dust control product (Lignosulfonate) along the Lillooet River FSR beginning on July 22nd, 2014. The IEM will consider *ULR#12* closed once the application has been completed.

4.5 Hydroelectric Facilities – Upcoming Works

The application of dust control product (Lignosulfonate) on Lillooet River FSR will be completed next week, once the application is complete *ULR#12* will be closed. Excavation of the intake diversion channel is scheduled to continue next week at the ULRHEF intake provided the landslide hazard rating is at suitable levels to permit works to continue. Excavation of ULRHEF downstream tunnel portal will continue for the next two weeks. Bench excavation at the ULRHEF powerhouse and construction of the BDRHEF intake access road will continue next week.

5.0 Transmission Line

5.1 Monitoring Results

Segment 1-7 & 9-10

- Pole installation and dressing continued in Segment 5 and began in Segment 4 this week (Photo 5 & 6).
- Clearing occurred in Segment 4, within the Stream 80A RVMA following the completion of AMBNS.
- Access roads were upgraded/constructed in Segments 7 & 10 this week.

Environmental Summary:

- The IEM was present as required when clearing activities occurred within 150m of wetlands, 30m of a stream, 100m of Coastal Tailed Frog Streams, Class 1 & 2 suitable Grizzly Bear forage habitat, moose and deer UWR, legally designated Old Growth Management Areas (OGMAs), or within NOGO, SPOW, and WESO, suitable nesting habitat. All flagged boundaries were respected during clearing activities. No environmental issues were observed.
- AMBNS were completed prior to all vegetation clearing along the TX-Line alignment during this reporting period.

Photos:

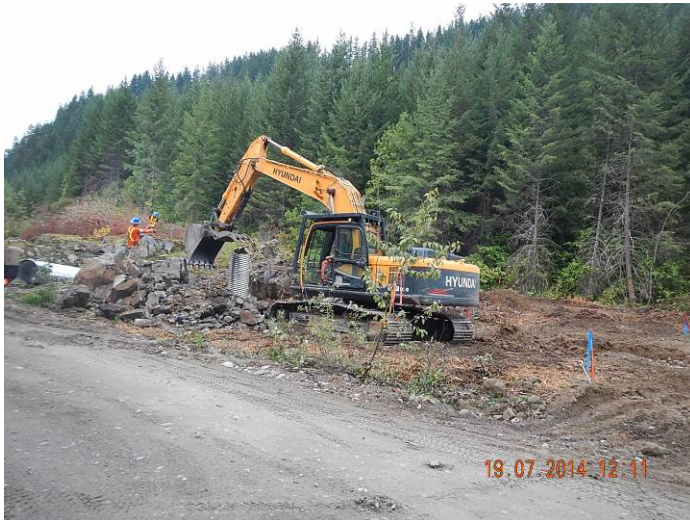


Photo 5. Pole foundation installation in Segment 5 (July 19, 2014).



Photo 6. Poles installation underway in Segment 4 (July 19, 2014).

Water Quality Results

Date	Time	Sample Location Description	pH	Turbidity (NTU)	Temperature (°C)
No WQ measurements were recorded at active Tx-line work areas during this reporting period. Construction and clearing activities had no visual effect on WQ.					

5.2 Transmission Line – Recommendations

No recommendations are provided for this reporting period.

5.3 Transmission Line – Upcoming Works

Transmission line access road upgrades will continue next week and pole installation and dressing is scheduled to resume in Segment 4 & 5 next week beginning on July 22nd. Clearing is scheduled to continue in Segment 3, 4, & 7 and in Segment 9 and 10 following the results of AMBNS. Upcoming transmission line works will be focused on road construction, pole installation, and completing the clearing within the Segments 3-10.

6.0 Wildlife Sightings

As per the CEMP, a wildlife sightings record has been implemented and will be updated regularly by Project Personnel. It is mandatory for all personnel to report wildlife sightings including, but not limited to bears, cougars, mountain goats and deer. Wildlife sighting will be reported and recorded by the contractor(s) and will be submitted to the IEM on a weekly basis. Wildlife Observation forms will be summarized on a monthly basis and appended to the first WEMR of the following month. Observation or detection of the following species will trigger notification to identified parties according to the following table.

Species Observed or Detected	Notification Period	Agencies to be Notified
Northern Rubber Boa	Immediately	IEM, Owner
Grizzly Bear	24hrs	IEM, Safety Officer, Conservation Officer, Owner
Wolverine Den	24hrs	IEM, MFLNRO, Owner
Spotted Owls	24hrs	IEM, MOE, Owner
Mountain Goats	48hrs	IEM, MFLNRO, Owner

7.0 Mountain Goat Monitoring Program

The critical early summer forage period for Mountain Goats has now ended; therefore Mountain Goat Monitoring has been temporarily suspended until the fall monitoring period as outlined in the Mountain Goat Management Plan.

No Mountain Goats were observed within 500m line of sight of construction activities during this reporting period; therefore no work stoppages were required.

8.0 Environmental Issues Tracking Matrix (ITM)

8.1 Hydroelectric Facilities (ULRHEF & BDRHEF)

Issue Tracking		Environmental Issue		Mitigation Measures			
ID No.	Status	Location	Issue Description	Action Taken/Recommended	Date of Identification	Targeted Date for Completion	Date Completed
ULR#4	Open	47km – Lillooet River FSR	A log box structure failed while being crossed by an excavator (<i>EIR002</i>).	1. CRT-ebc to prepare an EIR detailing the cause, description and actions items related to the incident.	May 23, 2014	May 26, 2014.	
				2. IEM to review and approved the EIR.			
				3. CRT-ebc employees will be reminded of spill response procedures and how to use the spill kits in a potential future event.			
				4. CRT-ebc to confirm that load ratings of equipment adhere to maximum crossing structure load ratings.			
				5. Complete FSR and temporary access road crossing assessment by a Qualified Professional.		June 26, 2014	
				6. Determine the requirements for crossing structure remediation or replacement		Transmitted to IEM on July 15, 2014	-
				7. Develop a work plan to remediate the failed log box structure and execute the approved plan during the 2014 instream works window. On July 19 th , 2014 CRT-ebc confirmed that the failed crossing structure [at 47km of the Lillooet River FSR; a fish bearing stream] will be remediated by cleaning debris and material from the stream and banks. A work plan will be submitted and mitigation measures prescribed by a QP will be implemented. This work must occur during the instream works window.		August 1 – September 15	

Issue Tracking		Environmental Issue		Mitigation Measures			
ID No.	Status	Location	Issue Description	Action Taken/Recommended	Date of Identification	Targeted Date for Completion	Date Issue Closed
ULR#8	Open	39.7km – Lillooet River FSR	Stream 9 – log box structure failure (EIR004).	1. CRT-ebc to prepare an EIR detailing the cause, description and actions items related to the incident.	May 28, 2014	June 3, 2014	
				2. IEM to review and approved the EIR.			
				3. CRT-ebc employees will be reminded of spill response procedures and how to use the spill kits in a potential future event.			
				4. CRT-ebc to confirm that load ratings of equipment adhere to maximum crossing structure load ratings.			
				5. Complete FSR and temporary access road crossing assessment by a Qualified Professional.		June 26, 2014 Transmitted to IEM on July 15, 2014	
				6. Determine the requirements for crossing structure remediation or replacement and execute according to the appropriate work planning protocols and construction procedures.			
				7. Develop a work plan to remediate the failed log box structure and execute during the 2014 instream works window. On July 19 th , 2014 CRT-ebc confirmed that this crossing structure will be repaired or replaced during the 2014 instream works window following MFLNRO approval.		2014 instream work window (August 1 – September 15)	

Issue Tracking		Environmental Issue		Mitigation Measures			
ID No.	Status	Location	Issue Description	Action Taken/Recommended	Date of Identification	Targeted Date for Completion	Date Issue Closed
ULR#10	Open	Lillooet River FSR	Innergex issued stop work order for heavy hauling on Lillooet River FSR	1. CRT-ebc to confirm load ratings of equipment adhere to maximum crossing structure load ratings.	May 28, 2014	May 30, 2014	-
				2. Conditional Rescission of the Stop Work Order for Heavy Hauling on the Lillooet River FSR was issued on June 1 st , 2014 subject to the following:		June 1, 2014	
				a. CRT-ebc obtaining approval from MFLNRO for the temporary steel plates		June 4, 2014	
				b. Crossing assessments completed by a QP.		June 26, 2014 Transmitted to IEM on July 15, 2014	
				c. Recommendations have been submitted to MFLNRO for review and approval. Work plan submission and repairs to be completed prior to September 15 for crossing structures at 39.7km and 47km of the Lillooet River FSR.		September 15, 2014	
d. Hauling above 38km of the Lillooet River FSR to be restricted to BCL-625 until modifications are approved by MFLNRO.	May 31, 2014 Transmitted to IEM on July 15, 2014						
ULR#12	Open	Lillooet River FSR	Inadequate dust suppression between 0-37.5km of the Lillooet River FSR	1. CRT-ebc has confirmed that dust control product (Lignosulfonate) will be applied to the Lillooet River FSR beginning on July 22 nd , 2014, and will be completed by July 25 th , 2014.	May 31, 2014	July 25, 2014	-

next ITM – ULR#16

8.2 Transmission Line

ITM Tracking Legend:	Work Item Open
	Work Item Complete
	Issue Closed

Issue Tracking		Environmental Issue		Mitigation Measures			
ID No.	Status	Location	Issue Description	Action Taken/Recommended	Date of Identification	Targeted Date for Completion	Date Issue Closed
<i>No outstanding environmental issues (next ITM – Tx#2)</i>							