


Upper Lillooet Hydro Project

Weekly Environmental Monitoring Report #73

Reporting Period: September 27 – October 3, 2015

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 |
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| | | Date Prepared: November 16, 2015 Date Submitted: November 23, 2015 |

Owner Construction Permits and Approvals

Environmental Assessment Certificate No. E13-01 (Amendment 1, 2, 3, 4, 5 & 6)
Fisheries Act Subsection 35(2)(b) Authorization No. 09-HPAC-PA2-000303 (Amendment 1, 2)
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, 4, 5, 6, 7) No. L49717
Occupant Licence to Cut (BDRHEF – KM 38 laydown) No. L49698
Occupant Licence to Cut (BDRHEF Amendments 1, 2, 3) No. L49816
Occupant Licence to Cut (TX Line Amendment 1, 2, 3, 4, 5, 6, 7, 8, 9) 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. 8200-2013-500102-001
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
SLRD Building Permit (10864) – Upper Lillooet River HEF Powerhouse
SLRD Building Permit (10865) – Boulder Creek HEF Powerhouse
Works Permit for Construction within FSR Right-of-Way No. 6123-14-01
Works Permit for Construction within FSR Right-of-Way No. 7977-15-01
Section 52(1)(b) FRPA Authorization for Ryan River Wet Crossing File No. FOR-19400-01/2014
MOTI Permit to Construct, Use and Maintain Works Upon the Right-Of-Way of a Provincial Public Highway No. 2014-06099

Contractor Construction Permits and Approvals

Magazine Licence File No. UL76018 (Renewal 1)
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 (Renewal 1)
Wildlife Act Permits – Pacific Tailed Frog Salvage Permit # SU15-164805; Fish Salvage Permit # SU15-174722
Fisheries and Oceans Canada – Anadromous Fish Salvage Permit #XR 178 2015
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 Main Camp
Water Supply System Permit to Operate Issued July 30th, 2014 for Main Camp
Section 6(3) and Schedule 3 Wildfire Regulations Fire Exemption for Ryan River Bridge File No. 14350-07
SLRD Building Inspection Report dated August 13, 2014 - Construction Camp Building Permit No. 10830
Lillooet River FSR Temporary Road Closures Approval File No. 11250-32/6123 (Amendment 1, 2)
Lillooet South FSR Temporary Road Closures Approval File No. 11250-32/7977
SLRD Building Permits for Mechanic Shop (10862) and Carpentry Shop (10836) March 18, 2015
SLRD Building Permit - Boulder Powerhouse Foundations, Stage 2, & Septic System Installation (10865) July 20, 2015
SLRD Building Permit – Upper Lillooet Powerhouse Foundations & Septic System Installation (10864) July 20, 2015

ACRONYMS:

| | | | |
|-----------------|--|----------------------|--|
| AMBNS | Active Migratory Bird Nesting Survey | INX | Innergex Renewable Energy Inc. |
| Andritz | Andritz Hydro Canada Inc. | ISW | Instream Works |
| ANFO | Ammonia nitrate fuel oil (industrial explosive) | ITM | Environmental Issue Tracking Matrix |
| ASMP | Archaeological Sites Management Plan | JEM | JEM Energy Ltd. (Delegate Independent Engineer) |
| ARD M/L | Acid Rock Drainage and Metal Leaching | LTC | Leave to Construct |
| BCEAO | British Columbia Environmental Assessment Office | MFLNRO | Ministry of Forests, Lands and Natural Resource Operations |
| BCWQG | British Columbia Water Quality Guidelines | MOE | Ministry of Environment |
| BDRHEF | Boulder Creek Hydroelectric Facility | MOTI | Ministry of Transportation and Infrastructure |
| BG | Background | NCD | Non Classified Drainage |
| BKL | BKL Consultants Ltd. | OLTC | Occupational License to Cut |
| CE | CRT-ebc Construction Inc. | PAG | Potentially Acid Generating |
| DFO | Fisheries and Oceans Canada | ROW | Right of Way |
| DS | Downstream | RVMA | Riparian Vegetation Management Area |
| EAC | Environmental Assessment Certificate | SES | Sartori Environmental Services |
| EAO | Environmental Assessment Office | SLRD | Squamish-Lillooet Regional District |
| Ecofish | Ecofish Research Ltd. | Stringer Line | Temporary Backfeed Transmission Line |
| Ecologic | Ecologic Consulting | TX Line | Transmission Line |
| EIR | Environmental Incident Report | ULRHEF | Upper Lillooet Hydroelectric Facility |
| ESC | Erosion and Sediment Control | UWR | Ungulate Winter Range |
| FAM | Field Advice Memorandum | VC | Valued Component |
| FSR | Forest Service Road | WEL | Westpark Electric Ltd. |
| Golder | Golder Associates | WEMR | Weekly Environmental Monitoring Report |
| GWR | Mountain Goat Winter Range | WHA | Wildlife Habitat Area |
| Hedberg | Hedberg and Associates Ltd. | WQ | Water Quality |
| HWM | High water mark | | |
| IE | Independent Engineer (True North Energy) | | |
| IEM | Independent Environmental Monitor | | |

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 | Key Monitoring Locations & Activities |
|----------------------|--------------------|--------------------|---|
| Sunday, September 27 | TH | Sunny and Clear | <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Drilling, blasting and tunnel stabilization • Dewatering to sediment basins <p>ULRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>ULRHEF Penstock</p> <ul style="list-style-type: none"> • Excavation from 3+900 to 4+125 • Welding from 2+800 to 3+200 • Backfill from 3+200 to 3+500 <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Concrete pour • Manifold installation <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Excavation, drilling and blasting for access ramp <p>BDRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization • Dewatering to sediment basins <p>BDRHEF Powerhouse</p> <ul style="list-style-type: none"> • Superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • No activities |
| Monday, September 28 | TH | Sunny and Clear | <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Concrete pour • Drilling, blasting and tunnel stabilization • Dewatering to sediment basins <p>ULRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>ULRHEF Penstock</p> <ul style="list-style-type: none"> • Excavation from 3+900 to 4+125 • Welding from 2+800 to 3+200 • Backfill from 3+200 to 3+500 <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Manifold installation <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Excavation, drilling and blasting for access ramp <p>BDRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>BDRHEF Powerhouse</p> <ul style="list-style-type: none"> • Superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 12 <ul style="list-style-type: none"> ➤ Road construction for Road 305 • Segment 13 |

| Date | IEM Team Personnel | Weather Conditions | Key Monitoring Locations & Activities |
|-------------------------|--------------------|--------------------|---|
| Tuesday, September 29 | TH | Sunny and Clear | <ul style="list-style-type: none"> ➤ Road construction for Road 308 ULRHEF Intake <ul style="list-style-type: none"> • Rebar and formwork installation • Drilling, blasting and tunnel stabilization • Dewatering to sediment basins ULRHEF Downstream Tunnel Portal <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization • Stripping and grubbing of spoil area SP-08 began ULRHEF Penstock <ul style="list-style-type: none"> • Excavation from 3+900 to 4+125 • Welding from 2+800 to 3+200 • Backfill from 3+200 to 3+500 ULRHEF Powerhouse <ul style="list-style-type: none"> • Rebar and formwork installation • Concrete pour for service bay footing • Manifold installation BDRHEF Intake, Crane Pad and Access Road <ul style="list-style-type: none"> • Excavation, drilling and blasting for access ramp BDRHEF Downstream Tunnel Portal <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization BDRHEF Powerhouse <ul style="list-style-type: none"> • Superstructure construction TX-Line <ul style="list-style-type: none"> • Segment 6 <ul style="list-style-type: none"> ➤ Framing structures • Segment 12 <ul style="list-style-type: none"> ➤ Road construction for Road 305 • Segment 13 <ul style="list-style-type: none"> ➤ Road construction for Road 308 |
| Wednesday, September 30 | SE, DA | Sunny and Clear | <ul style="list-style-type: none"> ULRHEF Intake <ul style="list-style-type: none"> • Rebar and formwork installation • Drilling, blasting and tunnel stabilization • Dewatering to sediment basins ULRHEF Downstream Tunnel Portal <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization • Falling trees within the OLTC boundary of spoil area SP-08 • Continued grubbing and perimeter ditching for spoil area SP-08 ULRHEF Penstock <ul style="list-style-type: none"> • Excavation from 3+900 to 4+125 • Placing and welding from 2+800 to 3+200 • Backfill from 3+200 to 3+500 ULRHEF Powerhouse <ul style="list-style-type: none"> • Rebar and formwork installation • Manifold installation BDRHEF Intake, Crane Pad and Access Road <ul style="list-style-type: none"> • Excavation, drilling and blasting for access ramp BDRHEF Downstream Tunnel Portal <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization BDRHEF Powerhouse <ul style="list-style-type: none"> • Superstructure construction • Falling trees within the footprint of the flood protection berm TX-Line <ul style="list-style-type: none"> • Segment 6 |

| Date | IEM Team Personnel | Weather Conditions | Key Monitoring Locations & Activities |
|---------------------|--------------------|--------------------|---|
| | | | <ul style="list-style-type: none"> ➤ Structure framing • Segment 12 <ul style="list-style-type: none"> ➤ Road construction for Road 305 • Segment 13 <ul style="list-style-type: none"> ➤ Road construction for Road 308 |
| Thursday, October 1 | TH, SE, AS, DA | Sunny, 22°C | <p>Construction Camp, Laydown Areas and the Lillooet River FSR</p> <ul style="list-style-type: none"> • Road maintenance on the Lillooet River FSR at KM43 <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Drilling, blasting and tunnel stabilization • Dewatering to sediment basins <p>ULRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>ULRHEF Penstock</p> <ul style="list-style-type: none"> • Excavation from 3+900 to 4+125 • Placing and welding from 2+800 to 3+200 • Backfill from 3+200 to 3+500 <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Manifold installation <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Excavation, drilling and blasting for access ramp <p>BDRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>BDRHEF Powerhouse</p> <ul style="list-style-type: none"> • Superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 6 <ul style="list-style-type: none"> ➤ Structure framing • Segment 12 <ul style="list-style-type: none"> ➤ Road construction for Road 305 • Segment 13 <ul style="list-style-type: none"> ➤ Road construction for Road 308 |
| Friday, October 2 | SE, AS | Sunny and Clear | <p>Construction Camp, Laydown Areas and the Lillooet River FSR</p> <ul style="list-style-type: none"> • Road maintenance on the Lillooet River FSR <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Drilling, blasting and tunnel stabilization • Dewatering to sediment basins <p>ULRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>ULRHEF Penstock</p> <ul style="list-style-type: none"> • Excavation from 3+900 to 4+125 • Welding from 2+800 to 3+200 • Backfill from 3+200 to 3+500 <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Manifold installation <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Excavation, drilling and blasting for access ramp <p>BDRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>BDRHEF Powerhouse</p> |

| Date | IEM Team Personnel | Weather Conditions | Key Monitoring Locations & Activities |
|---------------------|--------------------|--------------------|---|
| | | | <ul style="list-style-type: none"> • Superstructure construction TX-Line • Segment 6 <ul style="list-style-type: none"> ➢ Stringing conductors • Segment 11 <ul style="list-style-type: none"> ➢ Temporary culvert removal from CTF stream 272a and seasonal road deactivation • Segment 12 <ul style="list-style-type: none"> ➢ Road construction for Road 305 • Segment 13 <ul style="list-style-type: none"> ➢ Road construction for Road 308 |
| Saturday, October 3 | SE, DA | Sunny and Clear | <p>Construction Camp, Laydown Areas and the Lillooet River FSR</p> <ul style="list-style-type: none"> • Road maintenance on the Lillooet River FSR <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Concrete pour • Drilling, blasting and tunnel stabilization • Dewatering to sediment basins <p>ULRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>ULRHEF Penstock</p> <ul style="list-style-type: none"> • Excavation from 3+900 to 4+125 • Welding from 2+800 to 3+200 • Backfill from 3+200 to 3+500 <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar and formwork installation • Manifold installation <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Excavation, drilling and blasting for access ramp <p>BDRHEF Downstream Tunnel Portal</p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p>BDRHEF Powerhouse</p> <ul style="list-style-type: none"> • Superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 6 <ul style="list-style-type: none"> ➢ Stringing conductors |

IEM Team Personnel: TH – Tom Hicks; SS – Stephen Sims; BA – Blake Aleksich; AS – Anne Sutherland; DA – Danita Abraham; SE – Stephanie Ellis

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. |
|--------------------------|---------------------------|---------------------|--|-------------------|
| September 27 & 28 | <i>Emails</i> | SES, INX, WEL | WEL confirmed that fish isolation fencing was installed along the Lillooet South FSR as recommended by the IEM on September 26, 2015. A QP, completed fish isolation and salvage to permit temporary fording of flowing waters crossing the FSR to access Segment 6. WEL committed to minimizing the number of fording events by carpooling to site, driving slowly, and limiting crossing events to one (1) per vehicle per day (over and back) to complete the remainder of the works in Segment 6. | - |
| September 28 | <i>Email</i> | WEL, INX, SES | WEL submitted the annual CTF salvage permit report for 2014 that their QP (Ecofish) submitted to MFLNRO in January 2015. The report was forwarded for record keeping purposes. | - |
| September 29 | <i>Pre-work meeting</i> | SES, CE | A pre-work meeting was held to discuss the site preparation at spoil area SP-08 near KM 45 of the Lillooet River FSR. Items discussed included perimeter ditching, and the requirement to fall trees within the OLTC boundary. | - |
| | <i>Pre-work meeting</i> | SES, CE, Mumleqs | A site meeting was held to review the work plan for the Boulder Creek flood protection berm falling activities. It was discovered during the site review that the CE water intake pipes used for tunneling activity would be impacted by falling activities. CE installed material to cover and protect the pipes from the falling activity prior to the fallers beginning works. | - |
| September 30 | <i>Email</i> | INX, SES, CE | INX forwarded the LECO test results, which confirm that the blast rock generate during excavation of the BDRHEF intake access ramp is non-PAG material. | - |
| September 30 – October 1 | <i>Emails</i> | INX, JEM, SES | INX advised the IE and IEM teams that a small fire was started as a result of blasting works associated with the reactivation of the ULHP TX Line access road in Segment 13 that accesses structure 308 (referred to as Road 306A or 308 Road). A blast cap landed in a pile of dead cedar following blast detonation and ignited the material. A helicopter responded immediately and extinguished the fire with water buckets. A guard was dug around the smoldering pile of debris and a fire watch was held to ensure it did not flare up. | - |
| October 2 | <i>Email</i> | WEL, SES, INX | WEL submitted an email describing the fire started during construction of Road 306A on September 30, 2015. An incident report, photos of the area of impact and the Order issued by BC Wildfire Services were attached to the email and are appended to the end of this monitoring report. | - |

| Date | Communication Type | Participants | Issues Discussed | ITM ID No. |
|-----------|-------------------------|-----------------------|---|------------|
| October 2 | <i>Pre-work meeting</i> | SES, Ecofish, Mumleqs | A tailboard meeting was held to discuss the work plan for the removal of the temporary culvert installed in stream 272a in Segment 11. Ecofish installed CTF exclusion fencing and completed a CTF salvage prior to the start of works. | - |
| October 3 | <i>Email</i> | CE, INX, SES | CE submitted a notification indicating that no blast rock generated by the use of ANFO was used onsite during this reporting period. | - |

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 |
|-----------------------------|---|--|--|
| TX Line | Segments 6 – 15 | Within 150m of wetlands or 100m of Coastal Tailed Frog Streams | IEM presence is required when clearing within 150m of wetlands or 100m of CTF Streams, to ensure clearing areas are minimized. |
| | | Riparian Vegetation Management Areas (RVMA) | IEM monitoring is required during clearing within RVMA's. |
| | | Surface Water Quality | IEM monitoring is required during culvert installation activities in non-fish bearing waters to document adherence to the Surface Water Quality Protection Plan objectives. |
| | | Suitable Class 1 & 2 Grizzly Bear forage habitat | IEM monitoring is required when clearing within identified Class 1 & 2 Grizzly Bear forage habitat, to ensure clearing areas are minimized. |
| | | Ryan River Drainage | Construction of the TX Line into and across the Ryan River drainage will occur during the less critical Grizzly Bear summer foraging period (June 1 – September 1). |
| Lillooet River FSR & ULRHEF | Access roads above the lower limit of the 200m buffer Truckwash Creek Migration Corridor to the ULRHEF intake | Mountain Goat UWR & Migration Corridor | If a goat observation occurs within 500 m line-of-sight of construction activities, construction must cease for at least 48 hours. The IEM must record and submit all goat observations to FLNR within 48 hours. |

4.0 Upper Lillooet River HEF – Monitoring Results

4.1 Construction Camp, KM 38 Laydown, Access Roads & Lillooet River FSR

Activities:

- Routine maintenance and grading of the Lillooet River FSR and project roads.
- Routine maintenance of construction equipment within the mechanic shop and fuel management continued at the KM 38 laydown. All hazardous substance materials (waste oil, contaminated soil, used oil/hydraulic fluid containers, etc.) were stored temporarily for off-site disposal in a designated area at the laydown. The materials were all well contained and protected from the weather.
- The electric fences surrounding the construction camp were maintained and operational throughout this reporting period.

Environmental Summary:

- No environmental issues were observed or reported at the construction camp, KM 38 Laydown or along project access roads during this reporting period.

4.2 Intake (North & South Sides), and Upstream Tunnel Portal

Construction Activities:

- Drilling, blasting and tunnel stabilization at the ULRHEF upstream portal.
- Rebar and formwork installation.
- Concrete pours for intake structure (Photo 1).
- Mud-slab concrete pour at sluiceway location.
- Dewatering to ULRHEF intake sediment basins.

Environmental Summary:

- All turbid or alkaline water resulting from activities at the ULRHEF intake or upstream tunnel portal is pumped to the ULRHEF intake sediment basins. A dedicated CE crewmember is present to monitor the pumps within the intake work area and tunnel portal during active construction works. This person has the responsibility of directing all turbid or alkaline water to the sediment ponds and must verify with CE environmental staff or the IEM prior to directing any water to the Lillooet River. All water in the intake sediment basins infiltrated to ground during this reporting period.

Photos:



Photo 1 – Concrete pour at the ULRHEF intake
(October 3, 2015).



Photo 2 – Overview of the ULRHEF intake works area
(October 3, 2015).

4.3 *Downstream Tunnel Portal*

Construction Activities:

- Drilling, blasting, mucking and stabilization works within the tunnel (Photo 3).
- Dewatering to downstream tunnel portal settling ponds.
- Following the pre-work meeting on September 29, 2015, CE began falling trees and stripping and grubbing the new spoil area (SP-08) at KM 45 of the Lillooet River FSR.

Environmental Summary:

- The downstream portal infiltration ponds are nearing capacity, and the outlet from the ponds is currently buried and requires repair (Photo 4). Water has begun to seep from the base of the ponds into a vegetated area southwest of the ponds (within the OLTC; Photo 5). The IEM monitored the seepage flow from the ponds throughout the reporting period and confirmed that the water infiltrated to ground within the project area. Maintenance of the ponds is recommended to restore their infiltration capacity.

Photos:



Photo 3 – Current conditions at the ULRHEF downstream tunnel portal (October 3, 2015).



Photo 4 – Culvert outlet from the ULRHEF downstream tunnel portal infiltration ponds has been buried and requires repair. (September 29, 2015).



Photo 5 – ULRHEF downstream tunnel portal infiltration pond seepage (October 3, 2015).

4.4 Penstock

Construction Activities:

- Penstock excavation continued from 3+940 to 4+080, installation and backfill continued from 3+360 to 3+460 (Photo 6 & Photo 7).
- Penstock welding continued from 2+700 to 2+900.

Environmental Summary:

- No environmental issues were observed or reported at the ULRHEF penstock during this reporting period.

Photos:



Photo 6 – Penstock backfill works near ASTR-04 (September 29, 2015).



Photo 7 – Overview of active penstock work area; including welding and backfill placement (September 29, 2015).

4.5 *Powerhouse & Access Road*

Construction Activities:

- Formwork and rebar installation (Photo 8).
- Structural concrete pour on September 27 and 29.
- Manifold installation works continued throughout the reporting period (Photo 9).

Environmental Summary:

- Concrete pours at the ULRHEF powerhouse were completed in areas completely isolated from seepage water on September 27 and 29, 2015, and no environmental concerns were noted.



Photo 8 – Current conditions at the tailrace of the ULRHEF powerhouse (September 29, 2015).



Photo 9 – Installation of the manifold continued during this reporting period (September 29, 2015).

4.6 Water Quality Results

The following table presents the results of the routine WQ sampling program for the ULRHEF. The IEM is undertaking a weekly monitoring program according to the conditions outlined in the Surface Water Quality Protection Plan. The regular monitoring sites quantify WQ conditions within the Lillooet River upstream and downstream of active construction areas. The IEM acknowledges the natural variability of instream WQ conditions in the Lillooet River due to seasonal melt fluctuations and large tributary inputs. In the event that an exceedance of *in-situ* WQ (turbidity and/or pH) is deemed to be caused by project-related activities, the IEM will highlight the exceedance, discuss the cause, and outline measures undertaken by the Contractor to correct the issue. When an exceedance cannot be attributed to project related activities, the exceedance will be marked by an asterisk (*).

| Date | Time | Sample Location Description | pH | Turbidity (NTU) | Cond (µS) | Temp (°C) |
|------------------------------|-------|--|-----|-----------------|-----------|-----------|
| Routine Water Quality | | | | | | |
| October 3, 2015 | 11:13 | ULR Background – ULRHEF Intake | 7.1 | 51.4 | 93 | 4.6 |
| | 10:34 | ULR #0.5 – Downstream of ULRHEF intake at Keyhole Bridge | 7.6 | 54.2 | 131 | 4.9 |
| | 15:56 | ULR # 1 – Upstream of ULRHEF Powerhouse | 7.7 | 45.4 | 91 | 7.5 |
| | 11:56 | ULR #2 – Downstream of ULRHEF Powerhouse between KM 40.5 and KM 41 | 7.1 | 54.4 | 98 | 5.1 |
| | 16:39 | ULR #3 – Lillooet River FSR KM 38 Laydown – D/S of Boulder confluence | 7.5 | 33.3 | 99 | 8.5 |
| | 14:37 | ULR #4 – Lillooet River FSR KM 24 – D/S of all works and Meager confluence | 7.8 | 35.6 | 128 | 10.0 |

4.7 Recommendations

IEM recommendations for the ULRHEF are as follows:

- All seepage water in the intake excavation and portal should be conveyed to the sediment basins unless approved for discharge directly to the Lillooet River by the IEM or CE environmental manager.
- The IEM recommends that the access roads and tributaries on the penstock alignment be monitored regularly to ensure that no ESC issues develop with the continued installation works and traffic.
- The ULRHEF powerhouse sump water should be monitored regularly. Alkaline or turbid water should be pumped to the settling ponds for treatment.

4.8 Upcoming Works

The following new and/or environmentally sensitive construction activities are scheduled to occur at the ULRHEF in the upcoming reporting period(s):

- Tunneling activities will continue at the ULRHEF intake portal.
- Rebar and formwork installation will continue at the ULRHEF intake.
- Dewatering to the ULRHEF intake sediment basins will continue.
- Tunneling activities will continue at the ULRHEF downstream tunnel portal.
- Penstock installation will continue.
- Rebar installation, formwork and concrete pours will continue at the ULRHEF powerhouse.

5.0 Boulder Creek Hydroelectric Facility – Monitoring Results

5.1 Intake Access Road & Crane Pad

Construction Activities:

- Rounds of drilling, blasting, excavation and rock wall consolidation continued for access ramp construction at BDRHEF intake (Photo 10).

Environmental Summary:

- On October 1, 2015 the IEM installed a noise meter to monitor noise generated by construction activities at the BDRHEF intake, which are within UWR UL 12. The data collected will be used to inform the contractor of noise levels generated during work at the intake and will help guide adaptive management strategies if noise levels are consistently above the 75dBA noise level threshold.
- CE completed all reasonable mitigation measure to reduce the amount of blast rock lost to the river during each blast at the Boulder intake crane pad; however blast rock did enter the river during some of the blasts. The IEM was onsite to monitor water quality following each blast and no visible water quality impacts were observed. The IEM has determined that the blast rock lost to the creek did not cause environmental impact or concern for the following reasons:
 - Boulder creek is non-fish bearing at the intake,
 - The rock was blasted using gel based explosives and not ANFO,
 - The rock was classified as non-PAG,
 - The size of the rock was predominantly large, and mostly free of fines,
 - The material fell within the authorized footprint of the intake work area;
 - No visual impacts to water quality were observed (water quality was not able to be sampled due to access limitations), and,
 - All the rock will be removed during construction of the intake structure.

Photos:



Photo 10 – Material lost during blasting for the excavation of the access ramp at BDRHEF intake. Water quality remained visually unaffected immediately after the blast. (September 27, 2015).



Photo 11 – Spoil area used to place blast rock generated from the intake access ramp excavation. (September 29, 2015).

5.2 Downstream Tunnel Portal and Powerhouse

Construction Activities:

- BDRHEF powerhouse superstructure construction (Photo 12).
- Drilling, blasting, mucking and stabilization works within the tunnel.
- Dewatering of the tunnel to the oil water separator and settling ponds continued.
- On September 29, a site meeting was held to review the work plan for the Boulder Creek flood protection berm falling activities. During the site review it was determined that the CE water intake pipes used for tunneling activity would be impacted by falling activities. CE installed material to cover and protect the pipes from the falling activity prior to the fallers beginning works.

Environmental Summary:

- The IEM was onsite on September 29, to oversee falling activities within the Boulder Creek RVMA, identified OGMA, and suitable SPOW habitat. The IEM verified that clearing boundaries were flagged and reviewed by the fallers prior to completing the works.
- All wastewater related to the BDRHEF tunnelling works continued to be contained and conveyed to the downstream portal settling ponds for treatment. The water in the settling ponds has reached the fourth cell, and continues to infiltrate to ground.

Photos:



Photo 12 – BDRHEF powerhouse structure
(September 29, 2015).



Photo 13 – Falling within the footprint of the Boulder Creek diversion berm and within the Boulder Creek RVMA was monitored by the IEM (September 30, 2015).

5.3 Water Quality Results

The following table presents the results of the routine WQ sampling program for the BDRHEF. The IEM is undertaking a weekly monitoring program according to the conditions outlined in the Surface Water Quality Protection Plan. The regular monitoring sites have been selected to quantify WQ conditions within the Lillooet River upstream and downstream of active construction areas. The IEM acknowledges the natural variability of instream WQ conditions in Boulder Creek due to seasonal fluctuations in snowmelt. In the event that an exceedance of *in-situ* WQ (turbidity and/or pH) is deemed to be caused by project-related activities, the IEM will highlight the exceedance, discuss the cause, and outline measures undertaken by the Contractor to correct the issue. When an exceedance cannot be attributed to project related activities, the exceedance will be marked by an asterisk (*).

| Date | Time | Sample Location Description | pH | Turbidity (NTU) | Cond (uS) | Temp (°C) |
|------------------------------|-------|--|-----|-----------------|-----------|-----------|
| Routine Water Quality | | | | | | |
| October 3, 2015 | - | BDR BG – Upstream of BDRHEF intake *not currently accessible* | - | - | - | - |
| | - | BDR #1 – Downstream of BDRHEF intake *not currently accessible* | - | - | - | - |
| | 9:35 | BDR #2 – Upstream of BDRHEF Powerhouse | 7.4 | 14.8 | 139 | 5.8 |
| | 16:22 | BDR #3 – Downstream of BDRHEF Powerhouse at Pebble Creek Bridge | 7.3 | 5.5 | 87 | 7.2 |

5.4 Recommendations

IEM recommendations for the BDRHEF are as follows:

- All wastewater related to the BDRHEF tunnelling works should continue to be contained and conveyed to the downstream portal settling ponds for treatment. Regular inspections

of the treatment ponds should be performed to ensure the necessary maintenance activities outlined in the work plan are performed.

- The spoil area (Photo 11) used to store blast rock generated by the BDRHEF intake access ramp should be reclaimed in steps during spoiling activities by placing organics and woody debris on the spoil slopes as outlined in the work plan.

5.5 *Upcoming Works*

The following new and/or environmentally sensitive construction activities are scheduled to occur at the BDRHEF in the upcoming reporting period(s):

- Blasting and excavation works will continue for the BDRHEF intake access ramp.
- BDRHEF downstream portal tunnelling works will continue.
- Superstructure construction will continue.

6.0 **Transmission Line – Monitoring Results**

6.1 *Transmission Line Construction Activities*

Right-of-Way Clearing:

- No hand falling was performed during this reporting period

Existing Road Upgrades and Access Road Construction

- Removal of stream 272a temporary culvert and seasonal road deactivation in Segment 11.
- Road construction on Road 305 in Segment 12.
- Road construction on Road 308 in Segment 13.

Transmission Line Pole Installation, Line Stringing and Clipping

- Structure framing followed by stringing and clipping in Segment 6.

Environmental Summary:

- The IEM was onsite to monitor the installation of CTF isolation netting (Photo 14), CTF salvage activities (Photo 16), and to take water quality measurements during the removal of the stream 272a temporary culvert in Segment 11. The culvert work area was isolated and dewatered during the excavation and removal of the temporary culvert (Photo 15), once a CTF salvage was completed. Once the culvert was removed (Photo 17), the streambed was compacted with the excavator bucket and the first pump was removed to allow some of the flow to pass through the work site. A temporary pulse of turbid water (peak of 43 NTU; See Section 206.2) was generated as flow were reintroduced to the stream bed, despite the continued use of a pump that diverted clear flows around the work site. Water quality returned to background levels within one hour following removal of the first pump.
- On September 28, 2015 fish isolation fencing was installed along the Lillooet South FSR

as recommended by the IEM on September 26, 2015. A QP, completed fish isolation and salvage to permit temporary fording of flowing waters crossing the FSR to access Segment 6. WEL committed to minimizing the number of fording events by carpooling to site, driving slowly, and limiting crossing events to one (1) per vehicle per day (over and back) to complete the remainder of the works in Segment 6.

- On September 30, a small fire (Photo 18, Photo 19) ignited during blasting works associated with the reactivation of the ULHP TX Line access road in Segment 13 that accesses structure 308 (referred to as Road 306A or Road 308). A blast cap landed in a pile of dead cedar following blast detonation and ignited the very dry material. A helicopter responded immediately and extinguished the fire with water buckets. A guard was dug around the smoldering pile of debris with an excavator and a fire watch was held to ensure it did not flare up. The BC Wildfire service, and INX were notified of the fire immediately and the appropriate level of response was initiated in a timely manner.

Photos:



Photo 14 – Installing CTF isolation netting and conducting CTF salvage prior to starting the stream 272a culvert removal works in Segment 11. (October 2, 2015).



Photo 15 – Pumps and hoses installed to dry work area during the 272a culvert removal. Once the culvert was dry it was assessed for CTF presence (October 2, 2015)



Photo 16 – CTF captured and relocated upstream of stream 272a culvert removal works. (October 2, 2015)



Photo 17 – Removal of stream 272a culvert completed in the dry. (October 2, 2015).



Photo 18 – Wetting down hot spots after a fire was accidentally started from blasting activities associated with Road 306 in Segment 13 (October 1, 2015).



Photo 19 – Overview of the area burned in Segment 13 (October 1, 2015)

6.2 Water Quality Results

In the event that an exceedance of in-situ WQ (turbidity and/or pH) is deemed to be caused by project-related activities, the IEM will highlight the exceedance, discuss the cause, and outline measures undertaken by the Contractor to correct the issue. When an exceedance cannot be attributed to project related activities, the exceedance will be marked by an asterisk (*).

| Date | Time | Sample Location Description | pH | Turbidity (NTU) | Cond (uS) | Temp (°C) |
|-----------------------------------|---------------------------------|-----------------------------|------|-----------------|-----------|-----------|
| Segment 11 - 272a Culvert Removal | | | | | | |
| October 2, 2015 | 8:30 | Background | 6.8 | 1.59 | 61 | 7.1 |
| | 10:42 | Outlet of Culvert | - | 1.24 | - | - |
| | 11:35 | Outlet of Culvert | - | 2.49 | - | - |
| | 12:12 | Outlet of Culvert | - | 3.56 | - | - |
| | 12:45 | 15m Downstream | - | 2.98 | - | - |
| | 13:20 | 15m Downstream | - | 43 | - | - |
| | 13:40 | 15m Downstream | - | 17.2 | - | - |
| | 13:55 | 15m Downstream | - | 9.32 | - | - |
| | 14:00 | 15m Downstream | - | 8.5 | - | - |
| 14:05 | Downstream at edge of work area | - | 3.33 | - | - | |

6.3 Recommendations

- The IEM has no recommendations at this time.

6.4 Upcoming Works

- Post-wildfire rebuild works in Segment 1 and 2.
- Clipping conductors in Segment 6.
- Road construction in Segment 12 and 13.
- Hand falling in Segment 14 and 16.

7.0 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). Wildlife Observation forms will be included in first reporting period following month end. 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 |

The Owner, Contractors, and IEM team reported the following wildlife sightings in September 2015.

| Upper Lillooet Hydro Project - Wildlife Observation Form | | | | | |
|--|-------|--------------------|------------------------|--------------------|-------------|
| Date | Time | Observer (Company) | Species or Description | Location | Comments |
| 9/1/2015 | 8:20 | Roger Pelletier | Coyote | Crusher Pad | unspecified |
| 9/2/2015 | 11:35 | Unknown - Radio | Black Bear | 46 km - FSR | travelling |
| 9/2/2015 | 11:45 | JM Pelletier | Marten | 46.5 km FSR | travelling |
| 9/9/2015 | 9:00 | Angel Orejas | Mule Deer | 38 KM FSR | travelling |
| 9/9/2015 | 9:15 | Angel Orejas | Mule Deer | 44.5 KM FSR | travelling |
| 9/14/2015 | 13:30 | Angel Orejas | Black Bear | 37.7 KM FSR | feeding |
| 9/11/2015 | 11:00 | Cindi McPherson | Black Bear | 31 KM FSR | travelling |
| 9/15/2015 | 15:45 | Greg Davis | Black Bear | Structure 24 | travelling |
| 9/16/2015 | 16:00 | Stefan St. Laurent | Black Bear | Camp Road .75KM | travelling |
| 9/18/2015 | 16:15 | D Bourgouin | Black Bear | FSR 48 KM | unspecified |
| 9/19/2015 | 14:50 | Roger Gagnon | Black Bear | FSR 46 KM | travelling |
| 9/22/2015 | 12:31 | Angel Orejas | Bald Eagle | FSR 37.5 KM | travelling |
| 9/22/2015 | 18:45 | Fanny Seminario | Black Bear | FSR 30KM | travelling |
| 9/23/2015 | 7:45 | David Bourgoin | Black Bear | Boulder Powerhouse | travelling |
| 9/23/2015 | 8:00 | Eric Paquet | Black Bear | Penstock 3+950 | travelling |

| Upper Lillooet Hydro Project - Wildlife Observation Form | | | | | |
|---|-------------|---------------------------|-------------------------------|------------------------|-----------------|
| Date | Time | Observer (Company) | Species or Description | Location | Comments |
| 9/25/2015 | 15:30 | Ian McKeachie | Black Bear | 48 KM FSR | travelling |
| 9/26/2015 | 8:00 | Gaetan Turgeon | Black Bear | 44.5 KM FSR | travelling |
| 9/26/2015 | 8:05 | Gaetan Turgeon | Black Bear | 46 KM FSR | travelling |
| 9/26/2015 | 8:25 | Marc-Andre Bergeron | Black Bear | 44.5 KM FSR | travelling |
| 9/26/2015 | 10:15 | Ian McKeachie | Black Bear | 47 KM FSR | travelling |
| 9/28/2015 | 8:35 | Jean Pelletier | Black Bear | 47 km FSR | travelling |
| 9/28/2015 | 9:20 | Jean Pelletier | Black Bear | 46.5 KM FSR | travelling |
| 9/29/2015 | 17:10 | Dennis Yandea | Black Bear | Penstock, near 42.5 km | travelling |

8.0 Mountain Goat Monitoring Program

The following mitigation measures related to mountain goats were implemented during this monitoring period:

- Noise level monitoring commenced one month earlier to collect data to be used to adaptive manage construction noise and ensure that the 75db noise level threshold is not exceeded as outlined in the Mountain Goat Management Plan.
- As of October 2, the IEM or designate was on site to monitor Mountain Goat activity within 500m of construction activities at the ULRHEF intake and the ULRHEF downstream tunnel portal. The mountain goat monitoring program was initiated a month early to collect information on mountain goat movement and activities post Boulder Creek wildfire. Mountain goats were monitored from four sites:
 - Truckwash Creek viewing river right of the Migration Corridor– MG-OBS01 (10U 467955 5612773):
 - Keyhole Falls viewing the south side u-2-002 UL11 – MG-OBS02 (10U 466593 5613988); and,
 - Garibaldi Pumice mine site viewing u-2-002 UL 19 – MG-OBS03 (10U 467388 561408); and,
 - Salal Creek monitoring site viewing u-2-002 UL 8 – MG-OBS04 (10U 466133 5613991).

Monitoring effort was split between all four sites between sunrise and sunset, unless safety concerns or weather conditions precluded monitors from doing so. The order of site visits rotated daily. Construction activities must cease if a goat(s) are observed moving towards the ULRHEF intake and/or if a goat(s) are observed within a 500m line of site of a construction activity. No goats were observed within 500m line of sight of construction activities and no work stoppages were required.

Please refer to the attached Mountain Goat Monitoring Daily Observation Forms for a summary of observations from this reporting period.

9.0 Environmental Issues Tracking Matrix (ITM)

9.1 Hydroelectric Facilities (ULRHEF & BDRHEF)

| ITM Tracking Legend: | | Work Item Open | | Mitigation Measures | | | |
|--|--------|---------------------|-------------------|--------------------------|------------------------|------------------------------|----------------|
| | | Work Item Complete | | | | | |
| | | Issue Closed | | | | | |
| Issue Tracking | | Environmental Issue | | | | | |
| ID No. | Status | Location | Issue Description | Action Taken/Recommended | Date of Identification | Targeted Date for Completion | Date Completed |
| <i>No outstanding environmental issues (next ITM – ULR#25)</i> | | | | | | | |

9.2 Transmission Line

| ITM Tracking Legend: | | Work Item Open | | Mitigation Measures | | | |
|--|--------|---------------------|-------------------|--------------------------|------------------------|------------------------------|----------------|
| | | Work Item Complete | | | | | |
| | | Issue Closed | | | | | |
| Issue Tracking | | Environmental Issue | | | | | |
| ID No. | Status | Location | Issue Description | Action Taken/Recommended | Date of Identification | Targeted Date for Completion | Date Completed |
| <i>No outstanding environmental issues (next ITM – Tx#3)</i> | | | | | | | |

Mumleqs Construction LLP

Incident Report

Date of incident: Sept. 30, 2015 approx. 4:05 PM

Location: Miller South off of FSR on project road 306A near structure 310

Type of incident: Fire caused by blasting activities.

Workers onsite: Wayne Spencer – Driller/blaster

Mitigation measures onsite prior to work commencing: The fire danger rating was checked in the AM and was posted as 2 at Pemberton Base after going up from 1 the day before. Meager was posted as 1. There was a water truck onsite complete with pumps and hoses.

Incident description: A blast was set off using handi-dets and safety fuse. It is suspected that a handi-det from the blast caused some dry cedar to ignite which quickly spread to the surrounding debris and standing timber.

Response description: Wayne Spencer called Tim Wales the superintendent who was close by . He discussed the situation with Wayne on the phone and the radio and made the assessment that the fire was spreading too fast into heavy fuels to fight with resources onsite.. The location of the fire was such that the truck could not get close enough to fight the flames effectively. Tim informed Gord Menzel the company general manager and he arranged for immediate helicopter support. The machines arrived and used the intake pond for the Miller power project to extinguish the flames. The Mumleqs crews stayed and did what they could to help keep the fire contained. By nightfall the situation was deemed safe to leave until morning as the entire area surrounding the burn was soaked down. At 6 AM on Thursday, October-01-15 the Lizzie crew with a 325 Cat excavator returned to the site to deal with 4 to 5 hotspots. A fire break was created circling the fire zone and pumps were used to supply water to hit the hotspots. By mid- afternoon the fire was out.

Corrective action for future works: One of the pumps that was used on the hotspots will be left in the water source and the area around any future blasts will be wetted down ahead of time. After the blast, any potential hot areas will be sprayed again.

Report compiled by:

Dave Paterson

Project Manager..



| | | |
|-------------------|------------------------|------------------------|
| REGION Coastal | DISTRICT Sea to Sky | FIRE CENTRE Coastal |
|-------------------|------------------------|------------------------|

| | | |
|---------------------------------|--------------|---|
| DATE (YYYY-MM-DD) 2015 10 01 | TIME 0930 | MINISTRY REPRESENTATIVE (print) Joseph Lax |
|---------------------------------|--------------|---|

TO (print)
Tim Wales to Mumlegs construction

SUBJECT / REFERENCE

Wildfire V30472 @ Branch of 8km on Miller Creek Power Project rd. - Pursuant to Section 6.3 of the Wildfire act, you are obligated to control and fully suppress the fire burning within 1km of your industrial activity at 5021 Miller Creek 5021-646 / 122 54.542 caused during TX construction for Innogate - Pursuant to Section 13 of the regulation you must continue to control and extinguish the fire (V30472) Mumlegs construction must advise the Pemberton Fire Zone of the Coastal Fire Centre when all suppression is complete and fire is called out. Failure to comply with this notice may result in enforcement action.

RECEIVED BY (signature)

Tim Wales

MINISTRY REPRESENTATIVE (signature)

122575

Mountain Goat Daily Observation Form

UPPER LILLOOET HYDRO PROJECT



Goat Monitor's Name(s): Anne Sutherland

Date (YYYY-MM-DD): 2015-10-02

106-185 forester street, north vancouver, bc v7h 0a6
office tel 987.5588 fax 987.7740

Weather (cloud cover, precipitation and temperature): 100% cloud, light rain, wind 0

Please submit **Mountain Goat Daily Observation Form** in person to a representative of Sartori Environmental Services (**Tom Hicks** or **Stephen Sims**) or by email to tom@sartorienv.com following each day of monitoring.

| Mountain Goat Observation Site | UWR/Migration Corridor - Location | UTM Coordinates (approximate center of observation area) | Daily Start Time (24hr clock) | Daily End Time (24hr clock) | Daily form # | 1 | of | 1 |
|--------------------------------|---|---|----------------------------------|--------------------------------|--|---|----|---|
| MG - OBS01 | Migration Corridor - East side of Truckwash Creek | 10U 467898 5612845 | 15h40 | 16h45 | If more space is needed in the below table, please fill out additional daily forms and indicate total number of forms above. | | | |
| MG - OBS02 | UWR u-2-002 UL 11 - Keyhole Falls | 10U 466760 5613967 | 11h00 | 13h07 | | | | |
| MG - OBS03 | UWR u-2-002 UL 19 - Garibaldi Pumice | 10U 469155 5614960 | 13h30 | 15h30 | | | | |
| MG - OBS04 | UWR u-2-002 UL 8 - Salal Creek | 10U 466133 5613991 | 08h30 | 10h46 | | | | |

| Observation Site (location) | Time (use 24hr clock) | UTM Coordinates or Waypoint (10U) | Species Observed (Mountain Goat or other species) | Observations (be specific - visual sign, track, other sign) | Total # of Animals | Age/Sex (if unknown - refer to attached info sheet) | Description of Activities (feeding, moving, etc.) | Comments (habitat, snow conditions, etc.) | Photo #s |
|--------------------------------|--------------------------|--------------------------------------|--|--|-------------------------|--|---|--|----------|
| MG - OBS04 | 08h45 | - | Mg | Visual | 3 | 2 adults: 1 nanny, 1 Unknown 1 yearling (15 months) | 1 feeding on its own, other 2 together resting above waterfall | The 2 goats that were above the waterfall remained resting the whole time I monitored. There was a blast around 10h00, loud and shook the ground. Mg ok. | 0 |
| MG - OBS02 | 11h00 | - | - | - | 0 | - | - | Nobody home! | 0 |
| MG - OBS03 | 13h55 | - | - | - | 0 | - | - | Heavy rain at 14h00, clouds on the mountain. When clouds receded no goats were spotted. | 0 |
| MG - OBS01 | 15h50 | - | Mg | Visual | 3 On Plinth (Meager) | 1 Adult and 1 nanny with young | Nanny and young are lying down resting, cannot get a size for young | One adult feeding on his own, in a different area than nanny. | 0 |

Mountain Goat Daily Observation Form

UPPER LILLOOET HYDRO PROJECT



Goat Monitor's Name(s):

Date (YYYY-MM-DD):

106-185 forester street, north vancouver, bc v7h 0a6
office tel 987.5588 fax 987.7740

Weather (cloud cover, precipitation and temperature):

Please submit **Mountain Goat Daily Observation Form** in person to a representative of Sartori Environmental Services (**Tom Hicks** or **Stephen Sims**) or by email to tom@sartorienv.com following each day of monitoring.

| Mountain Goat Observation Site | UWR/Migration Corridor - Location | UTM Coordinates <i>(approximate center of observation area)</i> | Daily Start Time <i>(24hr clock)</i> | Daily End Time <i>(24hr clock)</i> | Daily form # | 1 | of | 1 |
|--------------------------------|---|--|---|---------------------------------------|--|---|----|---|
| MG - OBS01 | Migration Corridor - East side of Truckwash Creek | 10U 467898 5612845 | 15h15 | 16h45 | If more space is needed in the below table, please fill out additional daily forms and indicate total number of forms above. | | | |
| MG - OBS02 | UWR u-2-002 UL 11 - Keyhole Falls | 10U 466760 5613967 | 14h00 | 15h00 | | | | |
| MG - OBS03 | UWR u-2-002 UL 19 - Garibaldi Pumice | 10U 469155 5614960 | 10h00 | 11h30 | | | | |
| MG - OBS04 | UWR u-2-002 UL 8 - Salal Creek | 10U 466133 5613991 | 11h50 | 13h50 | | | | |

| Observation Site <i>(location)</i> | Time <i>(use 24hr clock)</i> | UTM Coordinates or Waypoint <i>(10U)</i> | Species Observed <i>(Mountain Goat or other species)</i> | Observations <i>(be specific - visual sign, track, other sign)</i> | Total # of Animals | Age/Sex <i>(if unknown - refer to attached info sheet)</i> | Description of Activities <i>(feeding, moving, etc.)</i> | Comments <i>(habitat, snow conditions, etc.)</i> | Photo #s |
|---------------------------------------|---------------------------------|---|---|---|--------------------|---|---|---|-----------------|
| MG - OBS03 | 11h30 | - | MG | Visual | 3 | Adult nanny, 2 Yearling sex unk | Feeding, resting after ten minutes. | At the very top of mountain above the rocky bluffs. | Camera and iPad |
| MG - OBS04 | 12h10 | - | MG | Visual | 6 | 1 nanny, 1 Billy 3 sub adults? Sex unk 1 yearling sex unk | Feeding | Down close to the bottom of the rocky area closest to me. Lost site after 15 min. | On iPad |
| MG - OBS02 | 14h15 | - | None | N/A | 0 | N/A | N/A | N/A | 0 |
| MG - OBS01 | 15h25 | - | MG | Visual | 2 | Adults | Feeding | Too dark in the shade to take pictures. In left gully above waterfall On sound side of lillooet river | 0 |