


Upper Lillooet Hydro Project

Weekly Environmental Monitoring Report #65

Reporting Period: June 7 – June 13, 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 |
|---------------------|--|---|
| Name | Organization | |
| Herbert Klassen | Fisheries and Oceans Canada |  J. Alex Sartori, RPBio <i>Independent Environmental Monitor (IEM)</i> |
| 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 | JEM Energy Ltd. – Independent Engineer | |
| Thomas Hicks | Sartori Environmental Services | |
| Peter Ramsden | Innergex Renewable Energy Inc. | |
| Oliver Robson | Innergex Renewable Energy Inc. | |
| Grant Lindemulder | Innergex Renewable Energy Inc. | |
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| Julia Mancinelli | Innergex Renewable Energy Inc. | |
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| Renaud DeBatz | Innergex Renewable Energy Inc. | |
| Richard Blanchet | Innergex Renewable Energy Inc. | |
| Dara McDermott | Innergex Renewable Energy Inc. | |
| Yannick Tardif | CRT-ebc Construction Inc. | |
| Jonathan Drapeau | CRT-ebc Construction Inc. | |
| Éric Ayotte | CRT-ebc Construction Inc. | |
| Jean Pelletier | CRT-ebc Construction Inc. | |
| Jordan Gagne | CRT-ebc Construction Inc. | |
| Ian McKeachie | CRT-ebc Construction Inc. | Date Prepared: July 7, 2015 Date Submitted: July 14, 2015 |
| D'Arcy Soutar | Westpark Electric Ltd. | |
| Pontus Lindgren | Westpark Electric Ltd. | |
| Harriet VanWart | Lil'wat Nation | |

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. 8200-2013-500102-01
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
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
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) dated March 18, 2015

ACRONYMS:

| | | | |
|-----------------|--|----------------------|--|
| AMBNS | Active Migratory Bird Nesting Survey | ISW | Instream Works |
| Andritz | Andritz Hydro Canada Inc. | 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 | Stringer Line | Temporary Backfeed Transmission Line |
| Ecofish | Ecofish Research Ltd. | TX Line | Transmission Line |
| Ecologic | Ecologic Consulting | ULRHEF | Upper Lillooet Hydroelectric Facility |
| EIR | Environmental Incident Report | UWR | Ungulate Winter Range |
| ESC | Erosion and Sediment Control | VC | Valued Component |
| FAM | Field Advice Memorandum | WEL | Westpark Electric Ltd. |
| FSR | Forest Service Road | 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 | | |
| INX | Innergex Renewable Energy Inc. | | |

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, June 7 | DA | Sunny | <p>Construction Camp, Laydown Areas and the Lillooet River FSR</p> <ul style="list-style-type: none"> • Dust suppression on Lillooet River FSR from KM 37.5 to KM 47 <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • No activity (shutdown due to landslide risk) <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"> • Re-contouring stockpiled material for penstock staging area <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar installation and formwork <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Rock hammering and excavation • Slope stabilization works <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"> • Preparation for superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 6 <ul style="list-style-type: none"> ➤ Groundworks for pole foundations |
| Monday, June 8 | TH, DA, TJ | Sunny | <p>Construction Camp, Laydown Areas and the Lillooet River FSR</p> <ul style="list-style-type: none"> • Dust suppression on Lillooet River FSR from KM 37.5 to KM 47 <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • No activity (shutdown due to landslide risk) <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"> • Re-contouring stockpiled material for penstock staging area <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar installation and formwork • Concrete pour <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Rock hammering and excavation • Slope stabilization works <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"> • Preparation for superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 7 <ul style="list-style-type: none"> ➤ Stringing, pulling and clipping conductors • Segment 11 <ul style="list-style-type: none"> ➤ ROW clearing ➤ Stream 261a berm construction ➤ Hand falling from 264 – 267 ➤ Road clearing |

| Date | IEM Team Personnel | Weather Conditions | Key Monitoring Locations & Activities |
|--------------------|--------------------|--------------------|--|
| | | | <ul style="list-style-type: none"> • Segment 12 <ul style="list-style-type: none"> ➢ Clearing from structure 290-291 and 301-305 • Segment 13 and 14 <ul style="list-style-type: none"> ➢ Road construction |
| Tuesday, June 9 | SE, AS, AA | Sunny | <p>Construction Camp, Laydown Areas and the Lillooet River FSR</p> <ul style="list-style-type: none"> • Dust suppression on Lillooet River FSR from KM 37.5 to KM 47 <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • No activity (shutdown due to landslide risk) <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"> • Re-contouring stockpiled organic material for penstock staging area <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar installation and formwork <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Rock hammering and excavation • Slope stabilization works <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"> • Preparation for superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 7 <ul style="list-style-type: none"> ➢ Stringing, pulling and clipping conductors • Segment 11 <ul style="list-style-type: none"> ➢ ROW clearing ➢ Stream 261a berm construction ➢ Hand falling ➢ Road clearing • Segment 12 <ul style="list-style-type: none"> ➢ Clearing from structure 290-291 and 301-305 • Segment 13 and 14 <ul style="list-style-type: none"> ➢ Road construction |
| Wednesday, June 10 | SE, AS, VD | Sunny | <p>Construction Camp, Laydown Areas and the Lillooet River FSR</p> <ul style="list-style-type: none"> • Dust suppression on Lillooet River FSR from KM 37.5 to KM 47 <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • No activity (shutdown due to landslide risk) <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"> • Re-contouring stockpiled organic material for penstock staging area • Preliminary penstock trench excavation <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar installation and formwork • Concrete pour <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Rock hammering and excavation • Slope stabilization works |

| Date | IEM Team Personnel | Weather Conditions | Key Monitoring Locations & Activities |
|-------------------|--------------------|--------------------|--|
| | | | <p><i>BDRHEF Downstream Tunnel Portal</i></p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p><i>BDRHEF Powerhouse</i></p> <ul style="list-style-type: none"> • Preparation for superstructure construction <p><i>TX-Line</i></p> <ul style="list-style-type: none"> • Segment 7 <ul style="list-style-type: none"> ➤ Stringing, pulling and clipping conductors • Segment 11 <ul style="list-style-type: none"> ➤ Hand falling ➤ Road clearing ➤ ROW clearing ➤ Stream 261a berm construction • Segment 12 <ul style="list-style-type: none"> ➤ Clearing from structure 290-291 and 301-305 • Segment 13 and 14 <ul style="list-style-type: none"> ➤ Road construction |
| Thursday, June 11 | SE, AS, VD | Sunny | <p><i>Construction Camp, Laydown Areas and the Lillooet River FSR</i></p> <ul style="list-style-type: none"> • Dust suppression on Lillooet River FSR from KM 37.5 to KM 47 <p><i>ULRHEF Intake</i></p> <ul style="list-style-type: none"> • No activity (shutdown due to landslide risk) <p><i>ULRHEF Downstream Tunnel Portal</i></p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p><i>ULRHEF Penstock</i></p> <ul style="list-style-type: none"> • Re-contouring organic material stockpiles for penstock staging • Preliminary penstock trench excavation <p><i>ULRHEF Powerhouse</i></p> <ul style="list-style-type: none"> • Rebar installation and formwork <p><i>BDRHEF Intake, Crane Pad and Access Road</i></p> <ul style="list-style-type: none"> • Rock hammering and excavation • Slope stabilization works <p><i>BDRHEF Downstream Tunnel Portal</i></p> <ul style="list-style-type: none"> • Drilling, blasting and tunnel stabilization <p><i>BDRHEF Powerhouse</i></p> <ul style="list-style-type: none"> • Preparation for superstructure construction <p><i>TX-Line</i></p> <ul style="list-style-type: none"> • Segment 7 <ul style="list-style-type: none"> ➤ Stringing, pulling and clipping conductors • Segment 11 <ul style="list-style-type: none"> ➤ Hand falling ➤ Road clearing ➤ ROW clearing ➤ Stream 261a berm construction • Segment 12 <ul style="list-style-type: none"> ➤ Clearing from structure 290-291 and 301-305 • Segment 13 and 14 <ul style="list-style-type: none"> ➤ Road construction |
| Friday, June 12 | SE, AS, VD | Overcast | <p><i>Construction Camp, Laydown Areas and the Lillooet River FSR</i></p> <ul style="list-style-type: none"> • Dust suppression on Lillooet River FSR from KM 37.5 to KM 47 |

| Date | IEM Team Personnel | Weather Conditions | Key Monitoring Locations & Activities |
|-------------------|--------------------|--------------------|--|
| | | | <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Drilling, blasting and excavation <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"> • No activity <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar installation and formwork <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Rock hammering and excavation • Slope stabilization works <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"> • Preparation for superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 7 <ul style="list-style-type: none"> ➢ Stringing, pulling and clipping conductors • Segment 11 <ul style="list-style-type: none"> ➢ Hand falling from 264 – 267 ➢ Road clearing ➢ ROW clearing • Segment 12 <ul style="list-style-type: none"> ➢ Clearing from structure 290-291 and 301-305 • Segment 13 and 14 <ul style="list-style-type: none"> ➢ Road construction |
| Saturday, June 13 | SE, AS | Overcast | <p>Construction Camp, Laydown Areas and the Lillooet River FSR</p> <ul style="list-style-type: none"> • Dust suppression on Lillooet River FSR from KM 37.5 to KM 47 <p>ULRHEF Intake</p> <ul style="list-style-type: none"> • Drilling, blasting and excavation <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"> • No activity <p>ULRHEF Powerhouse</p> <ul style="list-style-type: none"> • Rebar installation and formwork <p>BDRHEF Intake, Crane Pad and Access Road</p> <ul style="list-style-type: none"> • Rock hammering and excavation • Slope stabilization works <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"> • Preparation for superstructure construction <p>TX-Line</p> <ul style="list-style-type: none"> • Segment 7 <ul style="list-style-type: none"> ➢ Stringing, pulling and clipping conductors • Segment 11 <ul style="list-style-type: none"> ➢ Hand falling ➢ Road clearing ➢ ROW clearing • Segment 12 <ul style="list-style-type: none"> ➢ Clearing from structure 290-291 and 301-305 |

| Date | IEM Team Personnel | Weather Conditions | Key Monitoring Locations & Activities |
|------|--------------------|--------------------|--|
| | | | <ul style="list-style-type: none"> • Segment 13 and 14 <ul style="list-style-type: none"> ➤ Road construction |

IEM Team Personnel: TH – Tom Hicks; SS – Stephen Sims; BA – Blake Aleksich; VD – Vanessa Dan; AA – Anthony Andrews; AS—Anne Sutherland; DA – Danita Abraham; TJ – Tammie Jenkins; 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. |
|---------------|-------------------------|---------------------------------------|---|------------|
| June 9, 2015 | <i>Email</i> | SES, CE, WEL, INX, Blackcomb Aviation | SES informed CE, INX and WEL that a noise level exceedance at Boulder Intake was recorded on June 8, 2015 at 11:07 (duration = 6 seconds; maximum = 75.6 dBA) due to a Blackcomb Aviation helicopter conducting a cut block assessment in the area for a forest licensee. SES spoke with a Blackcomb Aviation representative who indicated they were aware of the Mountain Goat habitat in the area and were operating the helicopter above the 400m minimum elevation. | - |
| | <i>Email</i> | CE, Ecofish, INX, SES | CE notified the project team of the receipt of DFO Salvage Permit #XR 178 2015. | - |
| June 10, 2015 | <i>Kick-off meeting</i> | WEL, SES, INX | A kick-off meeting was held for Segment 9a, 9b and Segment 10 works, as well as Ryan River FSR road repair works. Site conditions, environmental issues, safety measures and public relations concerns were discussed. | - |
| June 11, 2015 | <i>Email</i> | CE, SES, INX | INX distributed the LTC for Penstock Installation. Construction conditions and kick-off meeting requirements were highlighted in the distribution email. | - |
| June 12, 2015 | <i>Kick-off meeting</i> | CE, SES, INX, Andritz | A kick-off meeting was held for the ULRHEF Manifold installation. Site conditions, environmental issues and safety measures were discussed. | - |
| | <i>Email</i> | CE, INX, SES | CE distributed an amendment to the ULRHEF intake dewatering and wastewater treatment Work Plan. The amendment covers the installation of an oil/water separating baffle within the first cell of the treatment ponds. | - |

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 |
|-------------------|---------------------------|--|--|
| All Project Areas | TX Line, ULRHEF, & BDRHEF | Active Migratory Bird Nesting Period | AMBNS must occur prior to clearing vegetation in all Project areas according to the survey schedule and methods outlined in the Project's Active Migratory Bird Nest Survey Plan during the nesting period (May 1 – July 31). All nests identified as active must be protected by a no disturbance buffer until the nest is no longer deemed to be active by a QP (buffer distances vary by species and location; further details are provided in the AMBNS Plan). |
| TX Line | Segments 8 – 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 RVMAs. |
| | | 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 Raptor Nesting Habitat | IEM presence is required when clearing within suitable Northern Goshawk (NOGO), SPOW (Spotted Owl) and Western Screech-Owl (WESO) nesting habitat during the breeding period. A QP is to complete a nest survey if working within 600m of suitable Peregrine Falcon (PEFA) nesting habitat during the breeding period. |
| | | 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. |
| | | Wildlife Habitat Area (WHA) 2-399 | Construction of the transmission line within the Grizzly Bear WHA 2-399 must be constructed outside of April 1 to June 15 and October 15 to December 31 to minimize disturbance to Grizzly Bears expected to use the WHA during spring and fall. |
| | | 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). |

| Component | Location | Wildlife/Archeology Concern | Construction/Timing Restrictions & Mitigations |
|-----------------------------|---|---|--|
| | | Mountain Goat UWRs | Helicopter flight paths will avoid UWRs and landing locations will be located further than 500m away from the UWRs during the sensitive late winter and kidding period (March 1 – June 15). |
| 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 | <p>Daily construction shutdowns occurred throughout the reporting period beginning one hour before and two hours after sunrise as well as two hours before and one hour after sunset. This timing restriction is effective within the Migration Corridor and 200m buffer throughout the month of May.</p> <p>Noise levels monitoring is occurring near the downstream portal at two monitoring stations within the Truckwash Creek migration route, as well as one location at the ULRHEF intake with guidance from an acoustical consulting firm. If noise levels exceed 75 dBA at the edge of UWR u-2-002 UL 11 or the migration corridor during the critical winter (Nov 1 - Apr 30) and kidding (May 1 - Jun 15) periods, additional mitigation measures are to be implemented to minimize noise levels.</p> <p>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.</p> |
| ULRHEF & BDRHEF | BDRHEF intake | Mountain Goat UWR habitat (u-2-002 UL 12) | <p>During winter construction and operations (November 1 – June 15), access to Boulder Creek HEF intake must be gated at least 500 m from the original UWR u-2-002 UL 12 to restrict motorized use within the UWR, unless otherwise directed by FLNR.</p> <p>Noise levels are monitored during active construction between May 1 – June 15 within UWR u-2-002 UL 12. The noise level monitoring location is between the intake work area and the portion of the UWR with the highest documented use. If noise levels exceed 75 dBA at this location, activities will cease until additional mitigation measures are proposed and implemented to minimize the possibility of additional noise level exceedances.</p> |

4.0 Upper Lillooet River HEF – Monitoring Results

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

Activities:

- Water trucks applied water for dust suppression along project access roads and the Lillooet River FSR from KM 37.5 to KM 47, throughout the reporting period (Photo 1).
- Routine maintenance of construction equipment within the mechanic shop and fuel management continued at the KM 38 laydown.
- The electric fences were maintained and operational throughout this reporting period.

Environmental Summary:

- No environmental issues were observed during this reporting period at the construction camp, 38km laydown or on the Lillooet River FSR.

Photos:



Photo 1 – Water applied to the Lillooet River FSR for dust suppression (June 8, 2015).

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

Construction Activities:

- Drilling, blasting, excavation and shotcrete stabilization at the upstream tunnel portal excavation (Photo 2 and Photo 3).
- Dewatering of portal excavation to the intake dewatering and wastewater treatment system (Photo 4 and Photo 5).

Environmental Summary:

- No activities occurred at the ULRHEF intake from June 7 – 11, 2015 due to elevated landslide risk according to the conditions of the Landslide Risk Management Plan.
- Drill and blast works continued at the ULRHEF intake on June 12 and 13, 2015. Drilling and blasting occurred within 500m of the Keyhole Falls Mountain Goat kidding range under the following conditions:
 - Noise suppression measures (delays, minimum charge weights, blast mats, etc.) are used,
 - Noise levels remain below 75 dBA (measured at Keyhole Falls monitoring location), and
 - The blast schedule provided to the IEM in advance to allow for goat monitoring to occur during the blasts.
- A dedicated CE crewmember is present on day shift and night shift to monitor the pumps within the intake structure and tunnel portal excavation during active construction works. This person has the responsibility of directing all turbid water to the sediment ponds and must verify with CE environmental staff or the IEM prior to directing any water to the Lillooet River. When elevated landslide risk forces closure of the intake work site, all seepage water conforming to BCWQGs is directed to the Lillooet River.
- The IEM was onsite to monitor all blasts and construction activities within 30m of the Lillooet River.

Photos:



Photo 2 – Rock hammering at ULRHEF intake excavation (June 13, 2015).



Photo 3 – Cleaning shotcrete machine at ULRHEF upstream tunnel portal (June 13, 2015).



Photo 4 – ULRHEF Intake and upstream tunnel portal sediment basins (June 8 , 2015).



Photo 5 – ULRHEF Intake and upstream tunnel portal sediment basins (June 8, 2015).

4.3 *Downstream Tunnel Portal*

Construction Activities:

- Drilling, blasting, mucking and stabilization works within the tunnel (Photo 6).
- Dewatering to downstream portal settling ponds (Photo 7).

Environmental Summary:

- Tunnelling works and dewatering to the downstream portal settling ponds continued during this reporting period. The settling pond water infiltrated to ground in the second cell with no discharge to the surrounding environment (Photo 7).
- On June 7, a geotextile membrane was installed over the entrance of the downstream tunnel portal to reduce noise from tunnel blasts (Photo 8). The installation of the curtain satisfied the IEM's request for CE to install mitigation measures following noise exceedances (>75dBA) recorded at the downslope monitoring station during the previous reporting period. The geotextile membrane was effective in reducing the noise created during blasting with no noise exceedances during blasts on June 9 or 10.

Photos:



Photo 6 – Current conditions at the ULRHEF downstream tunnel portal (June 8, 2015).



Photo 7 – ULRHEF downstream portal settling ponds (June 8, 2015).



Photo 8 – Geotextile membrane installed over entrance to downstream tunnel portal (June 9, 2015).

4.4 Penstock

Construction Activities:

- Re-contouring of stockpiles to allow for penstock staging areas (Photo 9).
- Bulk excavation for penstock trench (Photo 10).

Environmental Summary:

- A 300m no clearing buffer is flagged around the active SSHA nest, which will remain in place until the young have fledged. Construction activities (with the exception of clearing vegetation) will continue along the penstock alignment (within 300m of the active nest) during the nesting period as previously outlined by Ecofish.

Photos:



Photo 9 – Re-contouring of organic material stockpile to allow for penstock staging (June 8, 2015).



Photo 10 – Bulk excavation for penstock trench near 3+325 (June 12, 2015).

4.5 *Powerhouse & Access Road*

Construction Activities:

- Continued rebar installation and formwork for the powerhouse structure (Photo 11).
- Structural concrete pours occurred on June 8 and June 10 (Photo 12).
- Dewatering from the powerhouse sump to the Lillooet River continued (Photo 13 and Photo 14).

Environmental Summary:

- On June 8 and 10, the IEM was onsite to inspect the ULRHEF powerhouse and verify WQ within the dewatering sump during a concrete pour (Photo 12). At 16:45 on June 10, the IEM measured the water discharging from the powerhouse sump (Photo 13) to have a pH of 6.9 and to be suitable for discharge to the surrounding environment as per the Surface Water Quality Protection Plan.
- On June 10, the ULRHEF powerhouse sump and dewatering hoses were moved to allow for backfill works and crane access. The hoses were repositioned approximately 40m northwest (upstream) of the previous discharge location (Photo 14).
- Dewatering of the ULRHEF powerhouse continued without environmental concern throughout the reporting period. The IEM will continue to monitor the works area to confirm that future concrete pours are adequately isolated from flowing water and protected from precipitation during curing.

Photos:



Photo 11 – Rebar installation and formwork at the ULRHEF powerhouse (June 8, 2015).



Photo 12 – Concrete pour at ULRHEF powerhouse (June 10, 2015).

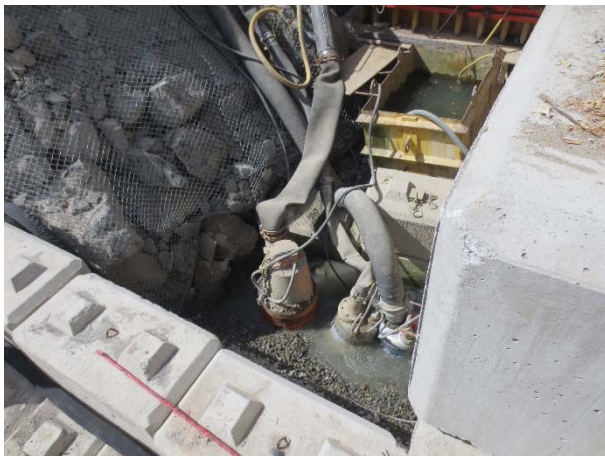


Photo 13 – ULRHEF powerhouse sump (June 10, 2015).



Photo 14 – ULRHEF powerhouse dewatering hoses relocated upstream of previous discharge location (June 10, 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 | | | | | | |
| June 12, 2015 | 10:08 | ULR Background – ULRHEF Intake | 7.7 | 26.7 | 50 | 6.0 |
| | 9:54 | ULR #0.5 – Downstream of ULRHEF intake at Keyhole Bridge | 7.8 | 31.1 | 50 | 5.5 |
| | 11:24 | ULR # 1 – Upstream of ULRHEF Powerhouse | 7.6 | 31.4 | 56 | 7.7 |
| | 11:45 | ULR #2 – Downstream of ULRHEF Powerhouse between KM 40.5 and KM 41 | 7.4 | 32.8 | 49 | 7.5 |
| | 14:28 | ULR #3 – Lillooet River FSR KM 38 Laydown – D/S of Boulder confluence | 7.5 | 27.0 | 55 | 10.0 |
| | 8:04 | ULR #4 – Lillooet River FSR KM 24 – D/S of all works and Meager confluence | 7.9 | 28.4 | 78 | 8.5 |

4.7 Recommendations

IEM recommendations for the ULRHEF are as follows:

- All seepage water in the portal excavation 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 excavation/fill works and rock truck traffic.
- The ULRHEF powerhouse sump water should be monitored regularly. Alkaline or turbid water should be pumped to the remaining 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):

- Drilling and blasting will continue at the ULRHEF intake.
- Dewatering of the upstream portal excavation will continue.
- Tunneling activities will continue at the ULRHEF downstream tunnel portal.
- Penstock installation will begin following work plan approval and a pre-work meeting.
- 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:

- Slope stabilization works continued at the BDRHEF intake and crane pad (Photo 15).

Environmental Summary:

- Noise monitoring continued from a station 375m northwest of the BDRHEF intake within the identified UWR (UL-11). Noise level monitoring was conducted to ensure that the 75 dBA noise level threshold is not exceeded as outlined in the Mountain Goat Management Plan.
- The gate to restrict public access on the BDRHEF intake access road within 500m of UWR was operated daily during this reporting period.

Photos:



Photo 15 – Crane and man basket used for slope stabilization works (June 12, 2015).

5.2 Downstream Tunnel Portal and Powerhouse

Construction Activities:

- Preparation and cleaning for superstructure construction (Photo 16).
- Drilling, blasting, mucking and stabilization works continued within the tunnel (Photo 17).
- Dewatering of the tunnel and powerhouse to the oil water separator and settling ponds continued (Photo 18).

Environmental Summary:

- The IEM observed oil spotting at BDRHEF downstream tunnel portal and powerhouse parking areas (Photo 19). The IEM notified CE's environmental management team and recommended inspecting vehicles for leaks and cleaning parking areas of oil residue.

Photos:



Photo 16 – Current conditions at the BDRHEF powerhouse (June 12, 2015).



Photo 17 – BDRHEF downstream tunnel portal (June 8, 2015).



Photo 18 – BDRHEF powerhouse settling ponds (June 8, 2015).



Photo 19 – Oil spotting at BDRHEF downstream portal parking area (June 8, 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 | | | | | | |
| June 12, 2015 | - | BDR BG – Upstream of BDRHEF intake *not currently accessible* | - | - | - | - |
| | - | BDR #1 – Downstream of BDRHEF intake *not currently accessible* | - | - | - | - |
| | 15:08 | BDR #2 – Upstream of BDRHEF Powerhouse | 7.1 | 15.2 | 46 | 8.1 |
| | 14:47 | BDR #3 – Downstream of BDRHEF Powerhouse at Pebble Creek Bridge | 7.7 | 14.8 | 49 | 8.7 |

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.
- CE should continue to exercise caution when working at the BDRHEF crane pad and on slope consolidation to prevent excessive rock fall into Boulder Creek.

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):

- Scaling and stabilization works on the BDRHEF intake right bank will continue.
- Rock hammering and excavation at the crane pad will continue.
- Blasting works will commence at the intake.
- BDRHEF downstream portal tunnelling works will continue.
- Superstructure construction will commence.

6.0 Transmission Line – Monitoring Results

6.1 Transmission Line Construction Activities

Right-of-Way Clearing:

- Hand falling in Segment 13 and 14.

Existing Road Upgrades and Access Road Construction

- Road clearing in Segment 11 (Photo 20).
- Berm construction at Stream 261a in Segment 11 (Photo 21).
- Road construction in Segment 11, 13 and 14.

Transmission Line Pole Installation, Line Stringing and Clipping

- Stringing, pulling and clipping conductors in Segment 7.

Environmental Summary:

- The IEM was present as required when clearing activities occurred within 150m of wetlands, 15m RVMAs (30m for CTF streams), 100m of Coastal Tailed Frog Streams, Class 1 & 2 suitable Grizzly Bear WHA and/or suitable forage habitat, moose and deer UWR, legally designated Old Growth Management Areas (OGMAs) or within Northern Goshawk, Spotted Owl or Western Screech-Owl nesting habitat (during breeding season). All flagged boundaries were respected during clearing activities. No environmental issues were observed.

Photos:

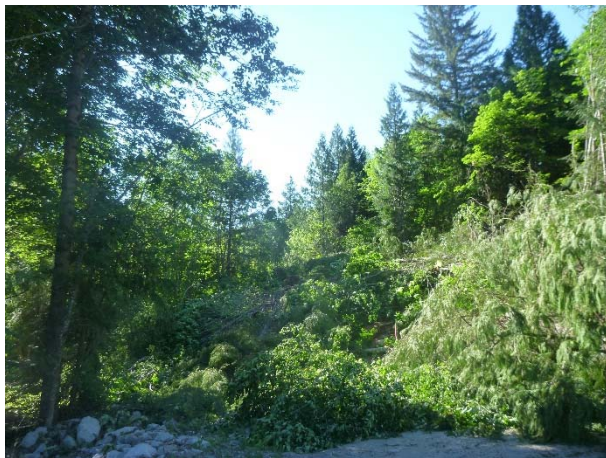


Photo 20 – Road clearing for the Ryan South Main near Vans Creek (June 9, 2015).



Photo 21 – Stream 261a berm construction (June 9, 2015).

6.2 Water Quality Results

| Date | Time | Sample Location Description | pH | Turbidity (NTU) | Cond (uS) | Temp (°C) |
|--|------|-----------------------------|----|-----------------|-----------|-----------|
| No construction activities involving water management were conducted during this reporting period. | | | | | | |

6.3 Recommendations

- The IEM has no recommendations at this time.

6.4 *Upcoming Works*

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

- Framing and stringing poles in Segment 4.
- Tensioning and clipping in Segment 7.
- Groundworks for pole foundations in Segment 9a.
- Slashing in Segment 9a and 12.
- Hand falling in Segment 9a, 11 and 13.
- Road construction in Segment 11, 13 and Segment 14.

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 |

8.0 **Mountain Goat Monitoring Program**

The following mitigation measures were implemented for work activity within the Migration Corridor during this monitoring period:

- Daily dawn and dusk shutdowns as outlined in the Mountain Goat Management Plan were followed.
- Noise level monitoring to ensure that the 75db noise level threshold is not exceeded as outlined in the Mountain Goat Management Plan.
- As of May 1, 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. Mountain goats were monitored from three 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).

Monitoring effort was split between all three 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 need to 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: | | <i>Work Item Open</i> | | | | | |
|-----------------------------|--------|---------------------------|-------------------|--------------------------|------------------------|------------------------------|----------------|
| | | <i>Work Item Complete</i> | | | | | |
| | | <i>Issue Closed</i> | | | | | |
| Issue Tracking | | Environmental Issue | | | Mitigation Measures | | |
| ID No. | Status | Location | Issue Description | Action Taken/Recommended | Date of Identification | Targeted Date for Completion | Date Completed |
| <i>next ITM – ULR#25</i> | | | | | | | |

9.2 Transmission Line

| ITM Tracking Legend: | | <i>Work Item Open</i> | | | | | |
|--|--------|---------------------------|-------------------|--------------------------|------------------------|------------------------------|----------------|
| | | <i>Work Item Complete</i> | | | | | |
| | | <i>Issue Closed</i> | | | | | |
| Issue Tracking | | Environmental Issue | | | Mitigation Measures | | |
| 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> | | | | | | | |

MOUNTAIN GOAT DAILY OBSERVATION FORM

UPPER LILLOOET HYDRO PROJECT

Goat Monitor's Name(s):

Date (YYYY-MM-DD):

Weather (cloud cover, precipitation and temperature):



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

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 | 07h30 | 09h30 | 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 | | | | | | |
| MG - OBS03 | UWR u-2-002 UL 19 - Garibaldi Pumice | 10U 469155 5614960 | 09h45 | 15h45 | | | | |

| Observation Site <i>(indicate if location other than OBS site)</i> | Time <i>(use 24hr clock)</i> | UTM Coordinates or Waypoint <i>(10U)</i> | Species Observed <i>(indicate 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 - OBS01 | 08h00 | 467898 5612845 | None | N/A | 0 | N/A | N/A | Penstock construction happening behind monitor site again. No sightings of the family of 5 again. | |
| MG - OBS03 | 09h55 | 469155 5614960 | MG | Visual | 2 | Adult Nanny Kid u/k | Seen them briefly, they were feeding on shrubbery and moved in behind the shrubs. | In the same area as yesterday, halfway up rock face near the tree line | |
| MG - OBS03 | 10h17 | 460155 5614960 | MG | Visual | 2 | Adult Nanny Kid Sex u/k | Seen a cloud of dust on the other side of gully across from where nanny and kid were. Seen them very briefly. Nanny and than kid. | They were moving down the mountain out of site. They must've crossed behind the ridge below where they were. | |
| " | 10h37 | " | " | " | " | " | Climbing up the rock face, nanny kept looking down into gully. Kid left the nannies side and went back down into gully briefly. | They went up behind ridge out of site. They quickly came up on a rock island and fed for a little while and disappeared again behind the ridge. | |

MOUNTAIN GOAT DAILY OBSERVATION FORM

UPPER LILLOOET HYDRO PROJECT

Goat Monitor's Name(s): Anne Sutherland and Danita Abraham

Date (YYYY-MM-DD): 2015-06-12

Weather (cloud cover, precipitation and temperature): Showers in am., sun and windy pm



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

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 | 14h00 | 16h00 | 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 | 09h05 | 11h00 | | | | |
| MG - OBS03 | UWR u-2-002 UL 19 - Garibaldi Pumice | 10U 469155 5614960 | 11h30 | 13h40 | | | | |

| Observation Site <i>(indicate if location other than OBS site)</i> | Time <i>(use 24hr clock)</i> | UTM Coordinates or Waypoint <i>(10U)</i> | Species Observed <i>(indicate 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 - OBS02 | 10h33 | 466760 5613967 | N/a | N/a | N/a | N/a | N/a | No goats | |
| MG - OBS03 | 12h30 | 469155 5613967 | N/a | N/a | N/a | N/a | N/a | No goats | |
| 47 km tracking site | 11h40 | 466710 5614274 | Moose | Tracks | 1 | Unknown | Walking towards keyhole | Hard to tell for sure because the sand was very dry and didn't clearly hold a hoof print | Img_3702 |
| MG - OBS01 | 14h00 | 467898 5612845 | Mg | Visual | 1 | U/k | Walking up slope then lay down for about 10 minutes in the sun, then disappeared | On meager mtn. | |

