Upper Lillooet Hydro Project

Weekly Environmental Monitoring Report #59

Reporting Period: April 26 - May 2, 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)

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Owner Construction Permits and Approvals

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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
             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
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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 #SU14-95329
Section 52 of the Fisheries (General) Regulations – Fish Salvage Licence #XR 139 2014
BC Safety Authority – Temporary Construction Electrical Service Permit EL-140698-2014
Municipal Wastewater Regulation - Authorization # 107032

Water Supply System Construction Permits – VCH-14-613 for 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
ASMP	Archaeological Sites Management Plan	ITM	Environmental Issue Tracking Matrix
ARD M/L	Acid Rock Drainage and Metal Leaching	JEM	JEM Energy Ltd. (Delegate Independent
BCEAO	British Columbia Environmental		Engineer)
	Assessment Office	LTC	Leave to Construct
BCWQG	British Columbia Water Quality Guidelines	MFLNRO	Ministry of Forests, Lands and Natural
BDRHEF	Boulder Creek Hydroelectric Facility		Resource Operations
BG	Background	MOE	Ministry of Environment
BKL	BKL Consultants Ltd.	MOTI	Ministry of Transportation and Infrastructure
CE	CRT-ebc Construction Inc.	NCD	Non Classified Drainage
DFO	Fisheries and Oceans Canada	OLTC	Occupational License to Cut
DS	Downstream	PAG	Potentially Acid Generating
EAC	Environmental Assessment Certificate	ROW	Right of Way
EAO	Environmental Assessment Office	RVMA	Riparian Vegetation Management Area
Ecofish	Ecofish Research Ltd.	SES	Sartori Environmental Services
Ecologic	Ecologic Consulting	Stringer	Temporary Backfeed Transmission Line
EIR	Environmental Incident Report	Line	,
ESC	Erosion and Sediment Control	TX Line	Transmission Line
FAM	Field Advice Memorandum	ULRHEF	Upper Lillooet Hydroelectric Facility
FSR	Forest Service Road	UWR	Ungulate Winter Range
GWR	Mountain Goat Winter Range	VC	Valued Component
Hedberg	Hedberg and Associates Ltd.	WEL	Westpark Electric Ltd.
IE	Independent Engineer (True North Energy)	WEMR	Weekly Environmental Monitoring Report
IEM	Independent Environmental Monitor	WHA	Wildlife Habitat Area
INX	Innergex Renewable Energy Inc.	WQ	Water Quality



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, April 26	SE	Overcast	 ULRHEF Intake No activity ULRHEF Downstream Tunnel Portal No activity ULRHEF Penstock No activity ULRHEF Powerhouse Continued rebar installation and formwork BDRHEF Intake, Crane Pad and Access Road No activity BDRHEF Downstream Tunnel Portal Drilling, blasting and tunnel stabilization BDRHEF Powerhouse Continued rebar installation and formwork TX-Line No activity
Monday, April 27	TH, SE	Periods of rain	ULRHEF Intake No activity ULRHEF Downstream Tunnel Portal No activity ULRHEF Penstock No activity ULRHEF Powerhouse Continued rebar installation and formwork Structural concrete pour BDRHEF Intake, Crane Pad and Access Road No activity BDRHEF Downstream Tunnel Portal Drilling, blasting and tunnel stabilization BDRHEF Powerhouse Continued rebar installation and formwork Structural concrete pour TX-Line Segment 2 Temporary generator site works Segment 8/9 Framing and stringing structures 182-201 Segment 12 Heli-access hand falling from structures 281-283 Segment 13 Hand falling from structures 323-327 Hand falling for road 306.1 Segment 14 Road building between structures 330.5-327
Tuesday, April 28	TH, SE	Overcast	ULRHEF Intake • No activity ULRHEF Downstream Tunnel Portal



Date	IEM Team Personnel	Weather Conditions	Key Monitoring Locations & Activities
			No activity
			ULRHEF Penstock
			No activity
			ULRHEF Powerhouse
			Continued rebar installation and formwork
			BDRHEF Intake, Crane Pad and Access Road
			No activity BDRHEF Downstream Tunnel Portal
			Drilling, blasting and tunnel stabilization
			BDRHEF Powerhouse
			Continued rebar installation and formwork
			TX-Line
			Segment 2
			Temporary generator site works
			Segment 8/9
			Framing and stringing structures 182-201
			• Segment 12
			➤ Heli-access hand falling from structures 281-283
			 Segment 13 Hand falling from structures 323-327
			Hand falling for road 306.1
			Segment 14
			Road building between structures 330.5-327
			ULRHEF Intake
			No activity
			ULRHEF Downstream Tunnel Portal
			No activity
			ULRHEF Penstock
			No activity
			ULRHEF Powerhouse Continued rebar installation and formwork
			Structural concrete pour
			BDRHEF Intake, Crane Pad and Access Road
			No activity
			BDRHEF Downstream Tunnel Portal
			Drilling, blasting and tunnel stabilization
Wednesday,			BDRHEF Powerhouse
April 29	TH, SE	Periods of rain	Continued rebar installation and formwork
7 April 23			TX-Line
			• Segment 2
			> Temporary generator site works
			◆ Segment 8/9 ➤ Framing and stringing structures 182-201
			Segment 11
			➤ Road building for access to bridge 261a
			• Segment 12
			➤ Heli-access hand falling from structures 281-283
			Segment 13
			Hand falling from structures 323-327
			Hand falling for road 306.1
			• Segment 14
			Road building between structures 330.5-327



Date	IEM Team Personnel	Weather Conditions	Key Monitoring Locations & Activities
Thursday, April 30	TH, SE, BA, AS, DA	Overcast	ULRHEF Intake No activity ULRHEF Downstream Tunnel Portal No activity ULRHEF Penstock No activity ULRHEF Powerhouse Continued rebar installation and formwork Concrete pour BDRHEF Intake, Crane Pad and Access Road No activity BDRHEF Downstream Tunnel Portal Drilling, blasting and tunnel stabilization BDRHEF Powerhouse Continued rebar installation and formwork TX-Line Segment 2 Temporary generator site works Segment 8/9 Framing and stringing structures 182-201 Segment 11 Road building for access to bridge 261a Segment 12 Heli-access hand falling from structures 281-283 Segment 13 Hand falling from structures 323-327 Segment 14 Road building between structures 330.5-327
Friday, May 1	TH, SE, BA, AS	Sun and cloud	ULRHEF Intake • Excavation of sump for intake wastewater treatment system • Hand falling for north-side spoil pile expansion and sediment basins ULRHEF Downstream Tunnel Portal • No activity ULRHEF Penstock • No activity ULRHEF Powerhouse • Continued rebar installation and formwork • Concrete pour BDRHEF Intake, Crane Pad and Access Road • Road clearing and bank stabilization works at 4.75km on BDRHEF intake access road BDRHEF Downstream Tunnel Portal • Drilling, blasting and tunnel stabilization BDRHEF Powerhouse • Continued rebar installation and formwork TX-Line • Segment 2 ▶ Temporary generator site works • Segment 8/9 ▶ Framing and stringing structures 182-201 • Segment 11



Date	IEM Team Personnel	Weather Conditions	Key Monitoring Locations & Activities
			 Road building for access to bridge 261a Segment 12 Heli-access hand falling from structures 281-283 Segment 13 Hand falling from structures 323-327
			Segment 14 Road building between structures 330.5-327
Saturday, May 2	BA, AS	Sunny	 ULRHEF Intake Excavation of sump for intake wastewater treatment system Hand falling for north-side spoil pile expansion and sediment basins ULRHEF Downstream Tunnel Portal Dewatering of tunnel portal ULRHEF Penstock No activity ULRHEF Powerhouse Continued rebar installation and formwork Concrete pour BDRHEF Intake, Crane Pad and Access Road Road clearing and bank stabilization works at 4.75km on BDRHEF intake access road Construction of checkpoint structure at 3km on access road BDRHEF Downstream Tunnel Portal Drilling, blasting and tunnel stabilization BDRHEF Powerhouse Continued rebar installation and formwork TX-Line No activity

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	Participants Issues Discussed	
	Email		INX distributed Amendment #7 to OLTC L49717.	-
April 27, 2015	Email	CE, INX, SES	The Upper Lillooet FSR snow plowing workplan was reviewed. It was confirmed that only snow plowing would proceed and road works (grading, ditching, etc.) would be permitted after May 1.	1
	Monthly IE/IEM site inspection		JEM and SES were onsite to conduct the IE/IEM monthly site inspection of active construction works.	-
April 28, 2015	Onsite training session	Lil'wat Nation, CE, WEL, INX, SES	ULHP Culturally Modified Trees & Archaeological Change Finds Field Work Shop presented by Lil'wat Nation at archeological sites located adjacent to the Lillooet River FSR near 19km.	-



Date	Communication Type Participants		Issues Discussed	ITM ID No.
	Office meeting	CE, SES, INX	An environmental coordination meeting was held to review the completion of action items discussed in the 2015 Environmental Kick-off meeting.	-
	Pre-work Meeting	WEL, Hedberg, SES, Mumleqs	The Segment 11 clearing and road works plan was reviewed with the clearing contractor and road building crew. Highlights of the discussions included the restriction for no work to occur within Grizzly Bear habitat polygon ULH-GB41 & 42 as well as the Ryan River Watershed Grizzly Bear habitat area. No stopping or staging of material or equipment will occur in these areas. Another prework meeting will occur prior to the 261a bridge installation.	•
	Email	Ecofish, MFLNRO, INX, CE, WEL, SES	Ecofish shared Grizzly Bear information provided by MFLNRO, confirming that stations had been re- baited at several locations, that wildlife camera stations had shown evidence of Grizzly Bear activity, and that collaring data indicated the emergence of females from their dens.	ı
April 29, 2015	ril 29, 2015 Phone discussion and email C		CE and SES discussed the installation of pump intake screens at the BDRHEF powerhouse to ensure they meet the standards set out in DFO's Freshwater Intake End-of-Pipe Fish Screen Guideline.	-
April 30, 2015), 2015 <i>Email</i> INX,		CE sent INX and SES the 2015 Coastal Tailed Frog salvage permit issued to Ecofish.	-
Email		INX, WEL, SES, MFLNRO, DFO	INX notified MFLNRO and DFO of the one-time crossing of stream 261a in Segment 11 with an excavator to support the construction of a bridge and deflector berms. INX attached the SES reviewed work plan with methodology and environmental considerations.	-
May 1, 2015	Kick-off meetings	CE, SES	Following a boardroom meeting at the CE office, onsite kick-off meetings were held at the ULRHEF intake, ULRHEF downstream tunnel portal, ULRHEF penstock and the BDRHEF intake. Site conditions, environmental concerns and safety measures were discussed at each location.	-
	Emails	CE, SES, INX	SES sent an email to identify deficiencies observed at the BDRHEF intake access road during the May 1 construction kick-off meetings. SES requested an EIR for slope stabilization works within a wetted ditch and added the issue to the ITM. SES also added the absence of a gate attendant at the BDRHEF Mountain Goat corridor gate to the ITM.	ULR#23 & ULR#24



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		
		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 area is 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.
TX Line	Segments 6 – 13	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 area is minimized.		
		Wildlife Habitat Area (WHA) 2-399	Construction of the transmission line within the Grizzly Bear WHA 2-399 must be construction outside of April 1 to June 1 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)		
		Moose, Deer, & 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 period (March 1 – May 15).		



Component	Location	Wildlife/Archeology Concern	Construction/Timing Restrictions & Mitigations
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	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 will be implemented to minimize noise levels. If a goat is observed 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.
abo (be Lillo	ULRHEF work areas above the powerhouse (beyond 41.5km of the Lillooet River FSR) & BDRHEF intake	Wolverine den emergence	Construction will not occur beyond 41.5km of the Lillooet River FSR or above the BDRHEF intake access road gate from March 1 – April 30 during the critical den emergence period.
ULRHEF & BDRHEF	BDRHEF intake	Mountain Goat UWR habitat (u-2-002 UL 12)	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. Noise levels will be monitored during active construction works occurring 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.

4.0 Upper Lillooet River HEF - Monitoring Results

4.1 Intake (North & South Sides), Access Roads and Upstream Tunnel Portal Construction Activities:

- Sump excavation for intake dewatering and wastewater treatment system (Photo 1 and Photo 2).
- Hand falling, machine clearing and grubbing for north-side spoil enlargement and sediment basins (Photo 3 and Photo 4).



Environmental Summary:

- On May 1, a kick-off meeting was held to discuss site conditions, safety concerns and environmental issues.
- Construction of the ULRHEF intake dewatering and wastewater treatment system commenced during this reporting period (Photo 2).
- The IEM observed that the erosion and sediment control measures (including hydroseeding) conducted in the fall and winter of 2014 appear to have been effective in preventing slope failure and mobilization of sediment during the spring snowmelt and rains (Photo 5).
- The IEM was onsite to monitor construction activities within 30 metres of the Lillooet River.
- Silt fencing was repaired at the 47.5km tributary to prevent sediment-laden runoff from entering the fish-bearing watercourse (Photo 6).
- During the May 1 kick-off meeting, the IEM and CE discussed the commencement of drilling and blasting at the intake. It was agreed that drilling and blasting could occur within 500m of the Keyhole Falls Mountain Goat kidding range under the following conditions:
- Noise suppression measures (delays, charge weights, blast mats, etc.) be used,
- Noise levels remain below 75db (measured at Keyhole Falls monitoring location), and
- Blasting schedule is communicated to the IEM to allow for goat monitoring to occur during the blasts.

Photos:



(May 2, 2015).



Photo 2 – Sump excavation for wastewater treatment system (May 2, 2015).





Photo 3 – Hand falling for spoil pile enlargement (May 2, 2015).



Photo 4 – Machine clearing for spoil pile enlargement (May 2, 2015).



Photo 5 – Intake left bank slope with curlex logs and hydroseeding to prevent rilling and erosion; hydroseeded grass sprouting on top of bank (May 2, 2015).



Photo 6 – Silt fencing repaired at 47.5km tributary (May 2, 2015).

4.2 Downstream Tunnel Portal

Construction Activities:

Dewatering of downstream tunnel portal (Photo 9 and Photo 10).

Environmental Summary:

- On May 1, a kick-off meeting was held to discuss site conditions, safety concerns and environmental issues (Photo 7 and Photo 8).
- During the May 1 kick-off meeting, the IEM and CE discussed the downstream portal dewatering requirements (Photo 7). CE requested that a generator be allowed to operate during the Mountain Goat migration corridor sunrise/sunset shutdown periods to power a pump for dewatering. The IEM agreed under the conditions that the generator was used only for the pumps and access to the generator was restricted during the shutdown periods.



 On May 2, the downstream tunnel portal was dewatered directly to Truckwash Creek with a 6" pump and hose. The pump was suspended from an excavator bucket to ensure that the intake did not convey sediment-laden water to Truckwash Creek (Photo 9). The hose outlet was secured in a positon that would not cause erosion to the stream bank (Photo 10). The IEM conducted water quality sampling prior to pumping and measured the portal water to be 1.46NTU with a pH of 7.85.

Photos:



Photo 7 – Kick-off meeting held at ULRHEF downstream tunnel portal (May 1, 2015)



Photo 8 - Conditions at Truckwash Creek (May 1, 2015)



Photo 9 – Pump suspended from excavator at ULRHEF downstream tunnel portal (May 1, 2015).



Photo 10 – Hose positioned in Truckwash Creek for dewatering of ULRHEF downstream tunnel portal (May 1, 2015).

4.3 Penstock

Construction Activities:

Penstock excavation works will resume during the next reporting period.

Environmental Summary:

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

4.4 Powerhouse & Access Road

Construction Activities:

- Continued rebar installation and formworks for the powerhouse structure.
- Structural concrete pours were completed on April 27 and May 1 (Photo 11).
- Dewatering of powerhouse sump to the Lillooet River continued (Photo 12 and Photo 13).

Environmental Summary:

 Dewatering of the ULRHEF powerhouse continued without environmental concerns. The IEM will continue to monitor the works area to confirm that future concrete pours are adequately isolated from flowing waters and protected from precipitation during curing.

Photos:



Photo 11 - Current conditions at ULRHEF powerhouse with concrete pour in progress (May 1, 2015).









Photo 13 – Dewatering of ULRHEF powerhouse sump to Lillooet River (May 1, 2015).

4.5 Water Quality Results

The following table presents the results of the routine water quality 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 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 the Lillooet River due to seasonal melt fluctuations and large tributary inputs. In the event that an exceedance of *in-situ* water quality (turbidity 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	рН	Turbidity (NTU)	Cond (uS)	Temp (°C)
		Routine Water Quality				
	13:10	ULR Background – ULRHEF Intake	7.6	13.1	102	10.1
May 2, 2015	13:24	ULR #0.5 – Downstream of ULRHEF intake at Keyhole Bridge	7.6	11.3	94	9.8
	14:15	ULR # 1 – Upstream of ULRHEF Powerhouse	7.7	12.1	105	10.9
	15:12	ULR #2 – Downstream of ULRHEF Powerhouse between KM 40.5 and KM 41	7.6	9.4	100	10.9
	15:32	ULR #3 – Lillooet River FSR KM 38 Laydown – D/S of Boulder confluence	7.7	8.8	103	10.7
	13:45	ULR #4 – Lillooet River FSR KM 24 – D/S of all works and Meager confluence	7.7	8.1	155	10.5



4.6 Recommendations

IEM recommendations for the ULRHEF are as follows:

- Following completion of the intake dewatering and wastewater treatment system, all seepage water in the upstream tunnel portal excavation should be conveyed to the sediment basins unless approved for discharge directly to the Lillooet River by the IEM.
- The ULRHEF powerhouse sump water should be monitored regularly and if the risk of turbid or alkaline water exists it should be pumped to the remaining settling pond for treatment.

4.7 Upcoming Works

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

- Excavation for intake dewatering and wastewater system sump will continue.
- Hand falling, machine clearing and grubbing for north-side spoil enlargement and sediment basins will continue.
- Installation of pipes, hoses and pumps for intake dewatering and wastewater treatment system will commence.
- 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:

- Road clearing and bank stabilization works began on May 1, 2015 within UWR UL-11 on access road at 4.75km (Photo 15).
- Crane assembly works.

Environmental Summary:

- On May 1, a kick-off meeting was held to discuss site conditions, safety concerns and environmental issues (Photo 14).
- On May 1, the IEM observed an excavator conducting road clearing and bank stabilization works within a wetted ditch without water management measures in place and without prior IEM notification (Photo 15). Works to remove debris from the ditch line caused the generation of turbid water that was discharged offsite without treatment. The IEM informed the CE environmental manager onsite that works were required to halt until pumps were in place to isolate the work area from flowing water. Works were halted a pump was brought in to divert the flow around the work area (Photo 16). The IEM requested that CE prepare and submit EIR#015 outlining the root cause of the incident and how it will be avoided in future.



- Works to restore the ditch line and stabilize the slope were completed on May 2 and the IEM
 was present to monitor the removal of the pump and release of water to the ditch line (Photo
 17). The IEM conducted water quality sampling during works. Sampling at the culvert outlet
 was not possible due to access restraints. Please see Section 5.3 Water Quality Results.
- On May 1, the IEM observed the gate to restrict public access on the BDRHEF intake access road within 500m of UWR to be unlocked and unmanned (Photo 18). The IEM communicated to CE's environmental management team that a gate attendant was required and CE responded by staffing the gate immediately (Photo 19). No public access occurred beyond the unmanned/unlocked gate.
- The unlocked/unmanned gate issue was added to the ITM as item ULR#23. The works within
 a wetted ditch on the BDRHEF access road issue was added to the ITM as item ULR#24
 and an EIR was requested by SES. Please see the ITM in Section 9.1 for further details.

Photos:



Photo 14 – Kick-off meeting at BDRHEF intake crane pad (May 1, 2015).



Photo 15 – Road clearing and bank stabilization works at 4.75km on BDRHEF intake access road (May 1, 2015).





Photo 16 – 2' pump used to convey water around road clearing works at 3.75km on BDRHEF intake access road (May 1, 2015).



Photo 17 – Ditch water with clear flows at 3.75km on BDRHEF intake access road (May 2, 2015).



Photo 18 – Gate at 3.5km on the BDRHEF intake access road (May 1, 2015).



Photo 19 – Attendant stationed at gate at on the BDRHEF intake access road (May 2, 2015).

5.2 Downstream Tunnel Portal and Powerhouse

Construction Activities:

- Rebar installation and formworks for the powerhouse structure continued (Photo 20).
- A structural concrete pour was completed on April 29 (Photo 21).
- Drilling, blasting, mucking and stabilization works continued within the tunnel (Photo 22).
- Dewatering of the tunnel and powerhouse excavation to the oil water separator and settling ponds continued (Photo 23 and Photo 24).

Environmental Summary:

 No environmental issues were observed during this reporting period at the BDRHEF powerhouse or downstream tunnel portal.



Photos:



Photo 20 – Current conditions at the BDRHEF powerhouse (May 2, 2015).



Photo 22 – Current conditions at BDRHEF tunnel portal (May 2, 2015).



Photo 24 – BDRHEF portal/powerhouse settling ponds (May 2, 2015).



Photo 21 – Structural concrete pour at the BDRHEF powerhouse (April 29, 2015).



Photo 23 – Dewatering tunnel and powerhouse to oil water separator (May 2, 2015).



5.3 Water Quality Results

The following table presents the results of the routine water quality 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 Boulder Creek 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 *insitu* water quality (turbidity 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	рН	Turbidity (NTU)	Cond (uS)	Temp (°C)		
	Routine Water Quality							
	-	BDR BG – Upstream of BDRHEF intake *not currently accessible*	-	-	-	-		
	-	BDR #1 – Downstream of BDRHEF intake *not currently accessible*	-	-	-	-		
May 2, 2015	14:45	BDR #2 – Upstream of BDRHEF Powerhouse	7.9	3.5	69	11.1		
	14:57	BDR #3 – Downstream of BDRHEF Powerhouse at Pebble Creek Bridge	7.6	4.3	77	11.3		
		Water Quality for Specific Wo	orks					
	Road	clearing and ditch maintenance at 4.75KM on B	Boulder Inta	ke access ro	ad			
	13:40	BG in ditch at 4.75KM	-	3.06	ı	-		
May 1, 2015	13:45	Outlet of ditch diversion pump	-	5.52	-	-		
	13:55	Outlet of ditch diversion pump	-	5.71	-	-		
	10:55	BG in ditch at 4.75KM	-	1.5	-	-		
May 2, 2015	11:15	At culvert inlet following release of water to ditch	-	48.1	-	-		
	11:35	At culvert inlet	-	2.64	-	-		

5.4 Recommendations

IEM recommendations for the BDRHEF are as follows:

The IEM recommends that the BDRHEF tunnel and powerhouse continue to be dewatered
to the oil water separator and settling ponds. The settling ponds should be monitored to
ensure water continues to infiltrate to ground and there is no discharge to the surrounding
environment.



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):

- Assembly of 300 tonne crane will continue.
- Scaling and stabilization works on the BDRHEF intake right bank will commence.
- BDRHEF downstream portal tunnelling works will continue.

6.0 Transmission Line - Monitoring Results

6.1 Transmission Line Construction Activities

Right-of-Way Clearing:

- Hand falling in Segment 12 from structures 281 283.
- Hand falling in Segment 13 from structures 316 318, 323 327 and for road 306.1 (Photo 25).

Existing Road Upgrades and Access Road Construction

- Assembly of temporary generator site in Segment 2 near 39km on Lillooet River FSR.
- Building road 327.1 in Segment 14 between structures 330.5 327 (Photo 26).

Transmission Line Pole Installation, Line Stringing and Clipping

Framing completed in Segment 8 and 9 from structure 182 – 201.

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 25 – Hand falling completed for spur road 306.1 in Segment 13 (April 30, 2015).



Photo 26 – Building spur road 327.1 in Segment 14 (April 30, 2015).

6.2 Water Quality Results

	Date Time Sample Location Description		рН	Turbidity (NTU)	Cond (uS)	Temp (°C)		
	Routine Water Quality							
No	No WQ measurements were recorded at active Tx-line work areas during this reporting period. Construction and							

clearing activities had no visual effect on WQ.

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):

- Stringing structures in Segment 8 and 9.
- Grading Miller Bench FSR in Segment 12.
- Hand clearing in Segment 13.
- Road construction in Segment 14.
- Helipad clearing and construction in Segment 15.



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 sightings 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

Wildlife sightings reported in April 2015 by the Owner, contractors, and IEM team, are included in the following table.

Date	Time	Observer (Company)	Species or Description	Location
1/4/2015	18:30	(No name) CE	Cougar	Lillooet River FSR – 33km
8/4/2015	16:00	Julia Mancinelli (INX)	Deer	Lillooet River FSR – 33km
8/4/2015	16:20	Julia Mancinelli (INX)	Sooty Grouse	Lillooet River FSR – 35km
10/4/2015	15:00	Simon Arsenault (CE)	Moose	Across Lillooet River - 41km
11/4/2015	13:45	Daniel Kennedy (CE)	Moose	Lillooet River FSR - 40km
13/4/2015	17:48	Blake Aleksich (SES)	Deer	Lillooet River FSR - 10km
14/04/2015	18:30	S. French (CE)	Goats	Lillooet River FSR – 6km
15/04/2015	7:00	Stephanie Ellis (SES)	Moose	Lilooet River FSR - 30km
16/04/2015	9:30	S. French (CE)	Moose	Lillooet River FSR – 13km
21/04/2015	15:45	T. Hicks (SES)	Osprey	Lillooet River FSR – 23km
22/04/2015	8:25	Kyle Peters (CE)	Mule Deer	Camp Road – 0.5km
23/04/2015	20:35	Jean Pelletier (CE)	Black Bear	Lillooet River FSR – 30.25km
24/04/2015	-	Brittany Linnett (Golder)	Moose	Lillooet River FSR – 14km
24/04/2015	9:10	T. Hicks (SES)	Deer	South Lillooet FSR – 1km
24/04/2015	10:30	T. Hicks (SES)	Deer	South Lillooet FSR – 5km
24/04/2015	10:35	T. Hicks (SES)	Deer	South Lillooet FSR – 8km
26/04/2015	7:30	Veronica Woodruff (Ecofish)	Moose	Lillooet River FSR – 26km
28/04/2015	15:00	Jacques Poirier	Bald eagle	Over Lillooet River, UL Powerhouse
29/04/2015	12:30	Veronica Woodruff (Ecofish)	Black Bear	Lillooet River FSR – 46km
29/04/2015	20:30	Angel Orejas	Moose	Lillooet River FSR – 16km



Date	e Time Observer (Company)		Species or Description	Location
29/04/2015	/2015 10:30 Stephanie Ellis (SES) /2015 18:00 Tom Hicks (SES)		Black Bear	Lillooet River FSR – 3km
30/04/2015			Black Bear	Lillooet River FSR – 2km
21/05/2015	19:45	S. French (CE)	Black Bear	Lillooet River FSR – 33km
23/05/2015	12:00	F. Seminaro (CE)	F. Seminaro (CE) Moose Lillooet	
24/05/2015	7:30	S. Wallace	Black Bear	Main Gate – Lillooet River FSR

8.0 Mountain Goat Monitoring Program

Work activity within the Mountain Goat Migration Corridor and 200m buffer required the following mitigation measures during this monitoring period:

- Implementation of the daily dawn and dusk shutdowns as outlined in the Mountain Goat Management Plan.
- Noise level monitoring to ensure adherence to the 75db noise level threshold 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 must cease if a goat(s) is 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 during this monitoring period.

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 Work Item Complete Issue Closed						
Issue T	racking		Environmental Issue	Mitigation Meas	Mitigation Measures				
ID No. Status		Location	Issue Description	Action Taken/Recommended	Date of Identification	Targeted Date for Completion	Date Completed		
ULR#23	Closed	BDRHEF intake access road	Gate to restrict public access on the BDRHEF intake access road within 500m of UWR was unlocked and unmanned	1. CE's environmental management team had the gate manned following the communication from the IEM. No public access occurred beyond the unmanned/unlocked gate; therefore, this was not considered an environmental incident. A documented repeat of this occurrence will require a formal environmental incident report.	May 1, 2015	May 1, 2015	May 1, 2015		
ULR#24	Closed	BDRHEF intake access road	An excavator was removing slope failure debris within a wetted ditch line without water management measures in place and without prior IEM notification. The work to remove the debris caused the generation of turbid water that was discharged offsite without treatment.	 The IEM informed the CE environmental manager onsite that works were required to halt until pumps were in place to isolate the work area from flowing water. Works were halted a pump was brought in to divert the flow around the work area. Prepare and submit EIR#015 outlining the root cause of the incident and how it will be avoided in future. 	May 1, 2015	May 3, 2015	May 2, 2015 (draft EIR submitted and approved)		
						next	ITM – ULR#25		

9.2 Transmission Line

ITM Tra Lege			Work Item Open Work Item Complete Issue Closed					
Issue Tr	ssue Tracking Environmental Issue		Environmental Issue	Mitigation Mea	asures			
ID No.	Status	Location Issue Description		Action Taken/Recommended	Date of Identification	Targeted Date for Completion	Date Completed	
	No outstanding environmental issues (next ITM – Tx#3)							

MOUNTAIN GOAT DAILY OBSERVATION FORM

UPPER LILLOOET HYDRO PROJECT

Date	(YYYY-MM-DD):	
Jale	(11111-101101-DD).	



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

Weather (cloud cover, precipitation and temperature): Cloudy, windy, chilly

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)
MG - OBS01	Migration Corridor - East side of Truckwash Creek	10U 467898 5612845		
MG - OBS02	UWR u-2-002 UL 11 - Keyhole Falls	10U 466760 5613967	14h30	15h45
MG - OBS03	UWR u-2-002 UL 19 - Garibaldi Pumice	10U 469155 5614960	16h00	16h35

Daily form #	1	of	2

If more space is needed in the below table, please fill out additional daily forms and indicate total number of forms above.

Observation Site (indicate if location other than OBS site)	Time (use 24hr clock)	UTM Coordinates or Waypoint (10U)	Observed	oiner sian)	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-OBS02	15h00	466760 5613967	Mountain goat (MG)	Visual	5	2 nannies,1 billy 1 yearling (born 2014) 1 u/k age and sex	Resting Yearling sleeping	Located on the mineral slope, nanny (fanny) and yearling resting with 2 other goats. Other goat walked behind the ridge, unable to identify.	103- 164
MG-OBS02	15h30	466760 5613967	MG	Visual	2	2 unknown	Moving away from behind the ridge	Came out from behind closest ridge to OBS spot	179- 194
MG-OBS03	16h10	469155 5614960	MG	Visual	3	1billy 2 u/k age and sex	Billy standing on ridge edge surveying. Then went to treed habitat. Two resting on different rock bluff to the east.	Still snow in areas where goats were observed	None

MOUNTAIN GOAT DAILY OBSERVATION FORM

UPPER LILLOOET HYDRO PROJECT

Goat Monitor's Name(s): Anne Sutherland

Date (YYYY-MM-DD):

2015_05_0	01
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106-185 forester street, north vancouver, bc v7h 0a6 office tel 987.5588 fax 987.7740

Weather (cloud cover, precipitation and temperature): Started low cloud, light precip, clear at

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)
MG - OBS01	Migration Corridor - East side of Truckwash Creek	10U 467898 5612845	09h20	11h30
MG - OBS02	UWR u-2-002 UL 11 - Keyhole Falls	10U 466760 5613967	14h15	16h00
MG - OBS03	UWR u-2-002 UL 19 - Garibaldi Pumice	10U 469155 5614960	12h05	13h45

Daily form	1	of	1
#			

If more space is needed in the below table, please fill out additional daily forms and indicate total number of forms above.

Site (indicate if location other than OBS site)	Time (use 24hr clock)	UTM Coordinates or Waypoint (10U)	Observed	omersiam	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-OBS01	09h30	467898 5612845	Deer and moose	Scat	U/K			No MG but lots of deer tracks on road crossing over creek. Deer Track marks on south side below monitoring location. Good spot for camera.	2449- 2458
MG-OBS03	13h00	469155 5614960	MG	Visual sighting	1	U/K	Resting/ lying down	Adult goat on north side of "rock gully". Not the same spot as yesterday Can't see other goat.	2466
MG-OBS02	13h55	466760 5613967	MG	Visual sighting	6	5 large goats, 1 yearling, sex unknown. Goats to far away to judge	Feeding	spotted goats upon arrival to the site. They were feeding and moving upslope behind trees.	No pics

MOUNTAIN GOAT DAILY OBSERVATION FORM

UPPER LILLOOET HYDRO PROJECT

Goat Monitor's Name(s): Anne Sutherland

Date (YYYY-MM-DD):

2015-05-02



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

Weather (cloud cover, precipitation and temperature): Sunny, 50% cloud, light wind

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)
MG - OBS01	Migration Corridor - East side of Truckwash Creek	10U 467898 5612845	13h30	15h30
MG - OBS02	UWR u-2-002 UL 11 - Keyhole Falls	10U 466760 5613967	11h10	13h15
MG - OBS03	UWR u-2-002 UL 19 - Garibaldi Pumice	10U 469155 5614960	08h30	10h50

Daily form	1	of	1
#			

If more space is needed in the below table, please fill out additional daily forms and indicate total number of forms above.

Observation Site (indicate if location other than OBS site)	Time	l (100)	Species Observed (indicate Mountain Goat or other species)	otrier siari)	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-OBS03	09h55	469155 5614967	MG	Visual siting of adult	1	Adult U/K	Feeding on rock bluff above yesterday's location(southern most rock face). Not visible at the start of observations.	Lone adult feeding. Sun just hitting the rock face he is on. Been feeding for about an hour. No sign of adult on the smaller rock bluff closest to pumice rd.	2467
MG-OBS02	11h10	466760 5613967	MG	Visual siting	6	1 yearling, 3 adults? Could be 2 sub-adults baste on horn length.	All Resting	They are resting along the edge of the forest	
ı	11h45	п	MG	Visual siting	6	п	4 are feeding and the 2 sub- adults are resting. One sub- adult has moved further away from the group before he lay down to rest.	Once they started getting up from resting, they began feeding and moved further away and then into the woods.	
MG-OBS01		467898 5612845						No visual siting or track signs	