

Upper Lillooet Hydro Project

Environmental Monitoring Summary Report

Reporting Period: August 23rd – September 11th, 2013

Construction Camp Water Well Site Preparations and Drilling

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)

Environmental Assessment Certificate No.E13-01 (Amendment 1)
Licence of Occupation (Boulder Creek Hydroelectric Facility #242386) File No. 2409998)
Occupant Licence to Cut (Construction Camp) No. L49698
Road Use Permit No. 6123-13-02

Prepared By



Tom Hicks, B.Sc.
Lead Environmental Monitor

&



J. Stephen Sims, R. P. Bio.
Delegated Environmental Monitor

Date Prepared: October 28, 2013

Date Submitted: November 1, 2013

Background

This Environmental Monitoring Summary Report (EMSR) describes environmental monitoring observations associated with production water well site preparation and drilling works at the proposed construction camp completed from August 23rd to September 11th, 2013. The IEM was onsite at the start-up of all work activities to participate in pre-job safety meetings and environmental orientation, and periodically during the reporting period to monitor activities.

Monitoring Results

Production Well Site #1 and #2 Preparation – August 23, 2013

In preparation for production well drilling, two 10m² areas were cleared of vegetation within the authorized construction camp footprint. Site #1 was located near the western boundary of the camp (Photo 1) and Site #2 was located at the southern camp boundary (Photo 2). Both locations were chosen to minimize the extent of tree clearing required. The IEM was onsite and all machinery was inspected for leaks and to ensure spill kits were onsite prior to conducting the works. No environmental concerns were noted.

Drilling – August 27 – 28, & September 4, 2013

The drilling and installation of three groundwater quality monitoring wells, was completed from August 27th to August 30th. The IEM participated in a pre-job safety meeting and work plan review prior to the start of works. All equipment was inspected and found to be free of leaks, off-site vegetative debris, and complete with appropriately sized spill kits. The IEM was onsite during drilling for the monitoring wells on August 27th and 28th (Photo 3), and for production well drilling on September 4th at Site #1 (Photo 4). No environmental concerns were noted during drilling activities.

Well Testing – September 11, 2013

The Site #1 production well was tested using three pump rate tests (75, 150, & 250 GPM) on the morning of September 11th. The pump setup (Photo 5) and discharge location (Photo 6) was inspected prior to beginning the tests. Scour at the discharge location was prevented by wrapping the outlet in a heavy tarp, which provided effective energy dissipation and protected against soil erosion. The preliminary results of the pump rate test determined that the Site #1 well would be sufficient to supply the construction camp with the needed volume of water. Therefore the Site #2 well was not drilled or developed. No environmental concerns were noted.

Upper Lillooet Hydro Project Environmental Monitoring Summary Report

Photos:



Photo 1. Production Well site #1 clearing. (Aug. 23, 2013)



Photo 2. Production Well site #2 clearing. (Aug. 23, 2013)



Photo 3. Monitoring well drilling. (Aug 28, 2013)



Photo 4. Production well drilling at site #1. (Sept. 4, 2013)



Photo 5. Production well testing setup. (Sept. 11, 2013)



Photo 6. Production well testing discharge location. (Sept. 11, 2013)