

Aberfeldie Water Use Plan

Monitoring Program

Annual Report: 2014

Implementation Period: June 2013 – May 2014

- **ABFMON-2 Primary and Secondary Productivity Monitoring**
- **ABFMON-3 Habitat Impact Monitoring**
- **ABFMON-4 Monitoring of Winter Habitat Maintenance Flows**
- **ABFMON-5 Effectiveness Monitoring Fish Habitat Works**

For Water Licences FWL 120650 and FWL 120651

June 30, 2014

BC Hydro Aberfeldie Project Water Use Plan Monitoring Programs Annual Report: 2014

1 Introduction

This document represents a summary of the status and the results of the Aberfeldie Water Use Plan (WUP) monitoring programs and physical works to May 31, 2014, as per the Aberfeldie Order under the *Water Act*, dated November 8, 2006. There are four monitoring programs.

2 Status

The following table outlines the dates that TOR for the Aberfeldie WUP monitoring programs were submitted to and approved by the CWR.

Table 2-1: Dates of Aberfeldie WUP TOR Submissions and Approvals by the Comptroller of Water Rights

Monitoring Program & Physical Works TOR	Order Clause (optional)	Original ToR Submission		Most Recent ToR Resubmission	
		Date Submitted	Date Approved	Date Submitted	Date Approved
ABFMON-2 Primary and Secondary Productivity Monitoring	Section 6(a)(ii)	Mar 28, 2008	Apr 28, 2008	Dec 11, 2009	Mar 16, 2010
ABFMON-3 Habitat Impact Monitoring	Clause 6(c)	Mar 31, 2008	Apr 28, 2008		
ABFMON-4 Monitoring of Winter Habitat Maintenance Flows	Clause 6(d)	Mar 31, 2008	Apr 28, 2008	Sep 11, 2009	Oct 01, 2009
ABFMON-5 Effectiveness Monitoring Fish Habitat Works	Clause 6(b)	Sep 29, 2008	Nov 20, 2008		

3 Schedule

The following table (Table 3-1) outlines the current schedule for the monitoring programs being delivered for the Aberfeldie WUP.

Table 3-1: Table of WUP Schedule

Monitoring Programs	2009 WLR YR1	2010 WLR YR2	2011 WLR YR3	2012 WLR YR4	2013 WLR YR5	2014 WLR YR6
ABFMON-2 • Primary and Secondary Productivity Monitoring	✓	✓		✓	✓	
ABFMON-3 • Habitat Impact Monitoring	✓					
ABFMON-4 • Monitoring of Winter Habitat Maintenance Flows	✓					
ABFMON-5 • Effectiveness Monitoring Fish Habitat Works	✓	✓	✓	✓	✓	✓ ¹
Physical Works						
Legend:	■	=	Program to be undertaken/initiated in identified year			
	u/w	=	Project is underway			
	✓	=	Program completed for the year			
	✓ ¹	=	Final report completion only			
	x	=	Program started, but encountered operational or hydrological delays			

4 Monitoring Programs Terms of Reference

The Monitoring Programs being implemented under the Aberfeldie WUP are described in Terms of Reference. These Terms of Reference and the reports for work completed to date can be found here:

http://www.bchydro.com/about/sustainability/conservation/water_use_planning/southern_interior/aberfeldie.html

5 Summary of Monitoring Programs

5.1 ABFMON-2 Primary and Secondary Productivity Monitoring

5.1.1 Status

This monitoring program was initiated in 2009 and was completed in 2012. Attached is the final report covering Year 4 of the WUP (2012), dated May 31, 2013.

5.2 ABFMON-3 Habitat Impact Monitoring

5.2.1 Status

This one year program was completed in 2009, in conjunction with the implementation contract for ABFMON-2 and ABFMON-5 Task 2a. The final report was submitted in June 2010.

5.3 ABFMON-4 Monitoring of Winter Habitat Maintenance Flows

5.3.1 Status

This one year program was conducted during the winter of 2009-2010. The final report was submitted in June 2010.

5.4 ABFMON-5 Effectiveness Monitoring Fish Habitat Works

5.4.1 Status

This monitoring program was initiated in 2009 and the final year of field work is 2013. The program was divided into three tasks: Task 2a - Productivity Monitoring, Task 2b - Fish Habitat Monitoring, and Task 2c – Riparian Vegetation Monitoring.

Attached is the Year 4 final report for Task 2a dated May 31, 2013, the Year 4 final report for Task 2b dated June, 2013, and the Year 4 report for Task 2c dated August 26, 2013.

The Year 5 final report for Task 2b is the sole outstanding report for the ABFMON-5 study, and will be submitted before September 2014.

6 Monitoring Programs Costs

The following table summarizes the Aberfeldie WUP monitoring programs costs approved by the Comptroller and the Actual Costs to May 31, 2014.

Table 6-1: Aberfeldie WUP Monitoring Program Costs

Monitoring Programs	Costs approved by CWR	Life to Date Actuals (LTD)	Estimated to Complete (Forecast)	Total Forecast (LTD and Forecast)	Variance Total to Approved	Explanation	Corrective Action
Aberfeldie WUP Annual Report	\$4,843	\$4,916	\$1,000	\$5,916	(\$1,073)	Additional reporting effort associated with changing staff	
ABFM02A Productivity Monitor	\$188,717	\$165,287	\$0	\$165,287	\$23,430	Project Completed	
ABFM02A Productivity Monitor - ONR DM	\$41,263	\$22,437	\$0	\$22,437	\$18,826		
ABFM02A Productivity Monitor - ONR Imp	\$147,454	\$142,851		\$142,851	\$4,603		
ABFM03A Habitat Impact Mon	\$35,814	\$37,734	\$0	\$37,734	(\$1,920)	Project Completed	
ABFM03A Habitat Impact Mon - ONR DM	\$14,914	\$12,457	\$0	\$12,457	\$2,457		
ABFM03A Habitat Impact Mon - ONR Imp	\$20,900	\$25,277		\$25,277	(\$4,377)		
ABFM04A Winter Flow Monitor	\$46,758	\$46,703	\$0	\$46,703	\$55	Project Completed	
ABFM04A Winter Flow Monitor - ONR DM	\$15,956	\$14,303	\$0	\$14,303	\$1,653		
ABFM04A Winter Flow Monitor - ONR Imp	\$30,802	\$32,400	\$0	\$32,400	(\$1,598)		
ABFM05A Effective Mon works	\$441,217	\$370,815	\$500	\$371,315	\$69,902	Efficiencies found during project implementation.	
ABFM05A Effective Mon works - ONR DM	\$147,757	\$100,405	\$500	\$100,905	\$46,852		
ABFM05A Effective Mon works - ONR Imp	\$293,460	\$270,410	\$0	\$270,410	\$23,050		

OR - Ordered Remissible

ONR - Ordered Non-Remissible

* Values in parentheses denote overage.