

February 28, 2023

Ted White, B.Sc.
Director and Comptroller of Water Rights
Ministry of Forests
PO Box 9340 Stn Prov Govt
Victoria, BC V8W 9M1

Dear Mr. White:

**Re: Wahleach Project Water Use Plan
Monitoring Programs and Physical Works Annual Report 2023**

Your letter approving the Wahleach Project Monitoring Program and Physical Works Terms of Reference states that BC Hydro is required to submit an annual report as well as individual monitoring program reports in February of each year. As per your approval email dated February 10, 2020, recognizing that WAHWORKS-2 Wahleach Reservoir Fertilization Program is the only project left in implementation under the Wahleach Project Water Use Plan, the annual report for 2023 is provided via this letter.

WAHWORKS-2 Wahleach Reservoir Fertilization Program

The objective of this program is to restore Kokanee abundance in Wahleach Reservoir through annual application of nutrient fertilizer from June through October.

This physical works was initiated in 2005 and is still underway. On February 5, 2021, your office approved our request to extend this study until December 31, 2023. This extension will allow the Ministry of Environment and Climate Change Strategy to continue to deliver this program under a Memorandum of Understanding with BC Hydro. BC Hydro, in consultation with the Ministry of Environment, recommended that the fertilization program continue until completion of the Water Use Plan Order Review when a long-term decision can be made on the reservoir fertilization. The WUP Order Review is underway.

The following individual project reports can be found on our Extranet site
<https://extranet.bchydro.com/sites/wire/CWR/Forms/AllItems.aspx>

- WAHWORKS-2 Wahleach Reservoir Fertilization Program (YR 16 dated March 1, 2022)
- WAHWORKS-2 Wahleach Reservoir Fertilization Program (YR 17 dated December 1, 2022)

Although fieldwork will complete in 2023, final comprehensive reporting deliverables will not be received until early 2025. The updated financial information for all projects is in Table 1 below. Please note that there was an error in the financial table submitted with the 2022 Annual Report which is corrected in Table 2 below.

Table 1: Wahleach Water Use Plan Monitoring Programs and Physical Works Costs – 2023

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
Wahleach WUP Annual Report	\$14,359	\$14,260	\$0	\$14,260	\$99		
WAHM01A Fish Productivity Ind	\$1,335,486	\$543,778		\$543,778	\$791,708	Project Completed	
WAHM01A Fish Productivity Ind - ONR DM	\$147,986	\$63,483		\$63,483	\$84,503		
WAHM01A Fish Productivity Ind - ONR Imp	\$1,187,500	\$480,294		\$480,294	\$707,206		
WAHM02A Channel Stability Ass	\$227,278	\$173,845		\$173,845	\$53,433	Project Completed	
WAHM02A Channel Stability Ass - ONR DM	\$74,678	\$29,950		\$29,950	\$44,728		
WAHM02A Channel Stability Ass - ONR Imp	\$152,600	\$143,895		\$143,895	\$8,705		
WAHM03A Herrling Island Side	\$479,514	\$330,230		\$330,230	\$149,284	Project Completed	
WAHM03A Herrling Island Side - ONR DM	\$141,814	\$47,128		\$47,128	\$94,686		
WAHM03A Herrling Island Side - ONR Imp	\$337,700	\$283,102		\$283,102	\$54,598		
WAHW01A Boulder Cr Flow Byp	\$1,330,034	\$296,890		\$296,890	\$1,033,144	Project Completed	
WAHW01A Boulder Cr Flow Byp - ONR DM	\$265,918	\$48,470		\$48,470	\$217,448		
WAHW01A Boulder Cr Flow Byp - ONR Imp	\$283,116	\$179,728		\$179,728	\$103,388		
WAHW01A Boulder Cr Flow Byp - CAP Imp	\$781,000	\$68,692		\$68,692	\$712,308		
WAHW02A Fertilization Progr	\$2,165,467	\$1,998,411	\$163,519	\$2,161,930	\$3,537	Efficiencies found during project implementation	
WAHW02A Fertilization Progr - ONR DM	\$78,723	\$71,777	\$3,445	\$75,222	\$3,501		
WAHW02A Fertilization Progr - ONR Imp	\$2,086,744	\$1,926,633	\$160,074	\$2,086,707	\$37		
WAHW03A Lower WAH Channel	\$241,609	\$111,913		\$111,913	\$129,696	Project Completed	
WAHW03A Lower WAH Channel - ONR DM	\$67,659	\$31,885		\$31,885	\$35,774		
WAHW03A Lower WAH Channel - ONR Imp	\$173,950	\$80,028		\$80,028	\$93,922		

OR - Ordered Remissible
ONR - Ordered Non-Remissible

* Red values in parentheses denote overage.

Table 2: Wahleach Water Use Plan Monitoring Programs and Physical Works Costs – 2022 amendment

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
Wahleach WUP Annual Report	\$14,359	\$14,260	\$0	\$14,260	\$99		
WAHM01A Fish Productivity Ind	\$1,335,486	\$543,204	\$3,890	\$547,094	\$788,392	Project Complete. Final completion reporting underway.	
WAHM01A Fish Productivity Ind - ONR DM	\$147,986	\$62,910	\$3,890	\$66,800	\$81,186		
WAHM01A Fish Productivity Ind - ONR Imp	\$1,187,500	\$480,294		\$480,294	\$707,206		
WAHM02A Channel Stability Ass	\$227,278	\$173,845		\$173,845	\$53,433	Project Complete	
WAHM02A Channel Stability Ass - ONR DM	\$74,678	\$29,950		\$29,950	\$44,728		
WAHM02A Channel Stability Ass - ONR Imp	\$152,600	\$143,895		\$143,895	\$8,705		
WAHM03A Herring Island Side	\$479,514	\$330,230		\$330,230	\$149,284	Project Complete	
WAHM03A Herring Island Side - ONR DM	\$141,814	\$47,128		\$47,128	\$94,686		
WAHM03A Herring Island Side - ONR Imp	\$337,700	\$283,102		\$283,102	\$54,598		
WAHW01A Boulder Cr Flow Byp	\$1,330,034	\$296,890		\$296,890	\$1,033,144	Project Complete	
WAHW01A Boulder Cr Flow Byp - ONR DM	\$265,918	\$48,470		\$48,470	\$217,448		
WAHW01A Boulder Cr Flow Byp - ONR Imp	\$283,116	\$179,728		\$179,728	\$103,388		
WAHW01A Boulder Cr Flow Byp - CAP Imp	\$781,000	\$68,692		\$68,692	\$712,308		
WAHW02A Fertilization Progr	\$2,165,467	\$1,888,066	\$35,098	\$1,923,165	\$242,302		
WAHW02A Fertilization Progr - ONR DM	\$78,723	\$66,920	\$1,620	\$68,540	\$10,183		
WAHW02A Fertilization Progr - ONR Imp	\$2,086,744	\$1,821,146	\$33,479	\$1,854,625	\$232,119		
WAHW03A Lower WAH Channel	\$241,609	\$111,913		\$111,913	\$129,696	Project Complete	
WAHW03A Lower WAH Channel - ONR DM	\$67,659	\$31,885		\$31,885	\$35,774		
WAHW03A Lower WAH Channel - ONR Imp	\$173,950	\$80,028		\$80,028	\$93,922		

OR - Ordered Remissible
 ONR - Ordered Non-Remissible

* Red values in parentheses denote overage.

Should you have any questions please do not hesitate to contact me.

Regards,

A handwritten signature in blue ink, appearing to read "M Sadler".

Margo Sadler for
Alison Briggs
Manager, Water Program
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Encl.

C:
Margo Sadler, BC Hydro
Manjit Kerr-Upal, Ministry of Water, Lands, and Resource Stewardship
Dan Sneep, Fisheries and Oceans Canada