

Columbia River Project Water Use Plan Kinbasket and Arrow Recreational Management Plan Monitoring Program and Physical Works

Annual Report: 2015

Implementation Period: January 2014 to December 2014

- CLBMON-14 Boat Ramp Use Study
- CLBWORKS-4 Kinbasket: Bulldog Creek New Ramp
- CLBWORKS-5 Kinbasket: Valemount Marina Ramp Extension
- CLBWORKS-6 Kinbasket: Nixon Creek Ramp Extension
- CLBWORKS-7 Kinbasket: Bush Harbour Ramp Extension
- CLBWORKS-9 Revelstoke Ramp Extend or Build
- CLBWORKS-11 Arrow: Burton New Ramp
- CLBWORKS-12 Arrow: Edgewood Ramp Extension
- CLBWORKS-13 Arrow: Fauquier Ramp Extension
- CLBWORKS-14 Arrow: McDonald Creek Park Ramp Extension
- CLBWORKS-16 Kinbasket: Debris Inventory, Management Strategy and Removal
- CLBWORKS-17 Arrow: Debris Inventory, Management Strategy and Removal
- CLBWORKS-18 Kinbasket & Arrow: Feasibility of Boat Ramps
- CLBWORKS-19 Lower Columbia: Indian Eddy Dredging Environmental and Engineering Assessment
- CLBWORKS-20 Lower Columbia: Indian Eddy Dredging
- CLBWORKS-21 Lower Columbia: Indian Eddy Debris Removal Environmental Review
- CLBWORKS-22 Lower Columbia: Indian Eddy Debris Removal
- CLBWORKS-23 Kinbasket & Arrow: Debris Removal Environmental Review
- CLBWORKS-32 Arrow: Renata New Ramp
- CLBWORKS-33 Arrow: Syringa New Ramp
- CLBWORKS-33 Arrow: Syringa Ramp (**NEW**)
- CLBWORKS-35 Mid-Columbia: Bank Erosion Protection and Monitoring Program
- CLBWORKS-36 Mid-Columbia: Long-term Erosion Monitoring Program
- CLBWORKS-40 Kinbasket: Site Preparation and Debris Work
- CLBWORKS-41 Kinbasket: Floating Debris Removal
- CLBWORKS-43 Nakusp Boat Ramp
- CLBWORKS-50 Shelter Bay Boat Ramp (**NEW**)

Conditional Water Licences for Kinbasket storage (27068 and 39432), Mica diversion (39431), Revelstoke diversion and storage (47215), and Arrow storage (27066)

January 31, 2015

BC Hydro Columbia River Project Water Use Plan Kinbasket and Arrow Reservoir Recreational Management Plan Annual Report: 2015

1 Introduction

This document represents a summary of the status and the results of the Kinbasket and Arrow Reservoir Recreational Management Plan Water Use Plan (WUP) monitoring programs and physical works to December 31, 2014, as per the Columbia River Order under the *Water Act*, dated January 26, 2007. There is one monitoring program and 26 physical works.

2 Status

The following table outlines the dates that TOR for the Kinbasket and Arrow Reservoir Recreational Management Plan WUP monitoring program and physical works were submitted to and approved by the CWR.

Table: 2-1: Dates of Kinbasket and Arrow Reservoir Recreational Management Plan WUP TOR Submissions and Approvals by the Comptroller of Water Rights

Monitoring Program & Physical Works TOR	Order Clause	Original ToR Submission		Most Recent ToR Resubmission	
		Date Submitted	Date Approved	Date Submitted	Date Approved
CLBMON-14 Boat Ramp Use Study	Conditional, 2(b), 6(b)	Nov 13, 2009	Dec 17, 2009	Oct 19, 2012	Dec 21, 2012
CLBWORKS-4 Kinbasket: Bulldog Creek New Ramp	Conditional, 2(a)	Oct 24, 2007	Not Ordered Mar 03, 2008		
CLBWORKS-5 Kinbasket: Valemount Marina Ramp Extension	Conditional, 2(a)	Oct 24, 2007	Mar 03, 2008	Feb 07, 2013	Feb 25, 2013
CLBWORKS-6 Kinbasket: Nixon Creek Ramp Extension	Conditional, 2(a)	Oct 24, 2007	Mar 03, 2008	Jun 22, 2009	Sep 18, 2009
CLBWORKS-7 Kinbasket: Bush Harbour Ramp Extension	Conditional, 2(a)	Oct 24, 2007	Mar 03, 2008	Jun 24, 2013	Jul 16, 2013
CLBWORKS-9 Revelstoke Ramp Extend or Build	Conditional, 3(a)	Oct 24, 2007	Mar 03, 2008	Cancelled	Mar 14, 2011
CLBWORKS-11 Arrow: Burton New Ramp	Clause M (ONR)	Jul 25, 2007	Aug 29, 2007	Jan 07, 2015	Pending
	Schedule D.4	Jul 25, 2007	Aug 29, 2007	Jan 07, 2015	Pending
CLBWORKS-12A Arrow: Edgewood Ramp	Clause M (ONR)	Apr 02, 2013	Apr 24, 2013	Jan 20, 2015	Pending
	Schedule D.4	Mar 2, 2012 Request to be relieved of obligation	Jul 26, 2012 Not granted		
CLBWORKS-13A Arrow: Fauquier Ramp Extension	Clause M (ONR)	Jul 25, 2007	Aug 29, 2007	Jan 07, 2015	Pending
	Schedule D.4	Jul 25, 2007	Aug 29, 2007	Mar 2, 2012 request to be relieved of obligation	Jul 26, 2012 Not granted
CLBWORKS-14 Arrow: McDonald Creek Park Ramp Extension	Clause M (ONR)	Jul 25, 2007	Aug 29, 2007	Jan 07, 2015	Pending
	Schedule D.4	Jul 25, 2007	Aug 29, 2007	Feb 19, 2014	May 08, 2014

Monitoring Program & Physical Works TOR	Order Clause	Original ToR Submission		Most Recent ToR Resubmission	
		Date Submitted	Date Approved	Date Submitted	Date Approved
CLBWORKS-16 Kinbasket: Debris Inventory, Management Strategy and Removal	(ONR) Conditional, 1(a)(b)	Nov 20, 2008	Nov 28, 2008	Mar 27, 2013	May 03, 2013
	Conditional, 1(a)(b)	Oct 26, 2007	Mar 05, 2008	Mar 27, 2013	May 03, 2013
CLBWORKS-17 Arrow: Debris Inventory, management Strategy and Removal	(ONR) Conditional, 5(a)(b)	Oct 26, 2007	Mar 05, 2008	Mar 27, 2013	May 03, 2013
	Conditional, 5(a)(b)	Oct 26, 2007	Mar 05, 2008	Mar 27, 2013	May 03, 2013
CLBWORKS-18 Kinbasket & Arrow: Feasibility of Boat Ramps	Schedule A, 4(a) Schedule C, 3(a) Schedule D, 4(a)	Apr 20, 2007	May 03, 2007	Mar 19, 2012	Not approved per letter of Jul 30, 2012
CLBWORKS-19 Lower Columbia: Indian Eddy Dredging Environmental and Engineering Assessment	Schedule E, 4(a)	Jul 24, 2007	Aug 29, 2007	Feb 02, 2009	Mar 26, 2009
CLBWORKS-20 Lower Columbia: Indian Eddy Dredging	Conditional, 8(a)	Sep 13, 2010	Nov 10, 2010 approval to develop TOR		
CLBWORKS-21 Lower Columbia: Indian Eddy Debris Removal Environmental Review	Schedule E, 1(a)	Jul 24, 2007	Aug 29, 2007		
CLBWORKS-22 Lower Columbia: Indian Eddy Debris Removal	Conditional, 8(b)	Jun 25, 2009	Jul 13, 2009	-	-
CLBWORKS-23 Kinbasket & Arrow: Debris Removal Environmental Review	Schedule E, 1(b)	Apr 27, 2007	May 03, 2007	-	-
CLBWORKS-32 Arrow: Renata New Ramp (Anderson)	Schedule D.4	Nov 13, 2009	Mar 15, 2010	Jan 12, 2015	Pending
CLBWORKS-33 Arrow: Syringa Ramp (New)	Clause M (ONR)	Jan 22, 2015	Pending		
CLBWORKS-33 Arrow: Syringa New Ramp	Schedule D.4	Nov 13, 2009	Not Approved per letter of Mar 15, 2010		
CLBWORKS-35 Mid-Columbia: Bank Erosion Protection and Monitoring Program	Amended Order, 2(a)	Jul 31, 2008	Sep 11, 2008	Mar 23, 2011	May 16 2011
CLBWORKS-36 Mid-Columbia: Long-term erosion monitoring program	Amended Order, 2(d)	Jul 31, 2008	Sep 11, 2008		
CLBWORKS-40 Kinbasket: Site Preparation and Debris Work	(ONR)	Mar 12, 2008	Mar 28, 2008	Dec 12, 2008	Dec 16, 2008
		Mar 12, 2008	Mar 28, 2008	Dec 12, 2008	Dec 16, 2008
CLBWORKS-41 Kinbasket: Floating Debris Removal	Conditional, 1(c)	Mar 12, 2008	Mar 28, 2008	Dec 12, 2008	Dec 16, 2008
CLBWORKS-43 Nakusp Boat Ramp	Clause M (ONR)	Apr 02, 2013	Apr 16, 2013	Jan 12, 2015	Pending
CLBWORKS-50 Shelter Bay	Clause M (ONR)	Jan 22, 2015	Pending		

3 Schedule

The following table (Table 3-1) outlines the current schedule for the monitoring programs and physical works being delivered for the Kinbasket and Arrow Reservoir Recreational Management Plan WUP.

Table 3-1: Table of WUP Schedule

Monitoring Programs	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	WLR YR1	WLR YR2	WLR YR3	WLR YR4	WLR YR5	WLR YR6	WLR YR7	WLR YR8 Interim Review	WLR YR9	WLR YR10	WLR YR11	WLR YR12	WLR YR13
CLBMON-14 Boat Ramp Use Study			✓	✓	✓	✓	✓	✓	■	■	■	■	■
Physical Works													
CLBWORKS-4 Kinbasket Bulldog Creek New Ramp Not Ordered													
CLBWORKS-5 Kinbasket: Valemount Marina Extend Ramp					✓	✓	✓	✓	■*	■*	■*	■*	■*
CLBWORKS-6 Kinbasket: Nixon Creek Ramp Maintenance Maintenance Only; Ramp not Ordered					✓	✓	✓	✓	■*	■*	■*	■*	■*
CLBWORKS-7 Kinbasket: Bush Harbour Ramp				✓	✓	✓	✓	✓	■*	■*	■*	■*	■*
CLBWORKS-9 Revelstoke Ramp Upgrade				✓									
CLBWORKS-11 Arrow: Burton New Ramp				✓	✓	✓	✓	✓	■	■*	■*	■*	■*
CLBWORKS-12A Arrow: Edgewood Ramp Extension - Clause M							✓	✓	■	■*	■*	■*	■*
CLBWORKS-12B Arrow: Edgewood Ramp Extension - WUP									■	■	■	■	■
CLBWORKS-13A Arrow: Fauquier Ramp Extension - Clause M				✓	✓	✓	✓	✓	■	■*	■*	■*	■*
CLBWORKS-13B Arrow: Fauquier Ramp Extension - WUP									■	■	■	■	■
CLBWORKS-14A Arrow: McDonald Ramp Extension - Clause M					✓	✓	✓	✓	■	■	■*	■*	■*
CLBWORKS-14B Arrow: McDonald Ramp Extension - WUP									■	■	■	■	■
CLBWORKS-16 Kinbasket: Debris Inventory, Management Strategy and Removal		✓	✓	✓	✓	✓	✓	✓	■	■	■		
CLBWORKS-17 Arrow: Debris Inventory, Management Strategy and Removal		✓	✓	✓	✓	✓	✓	✓	■	■	■		
CLBWORKS-18 Feasibility of Boat Ramps	✓	✓	✓										
CLBWORKS-19 Lower Columbia: Indian Eddy Dredging Environmental and Engineering Assessment	✓	✓	✓										
CLBWORKS-20 Lower Columbia: Indian Eddy Dredging								x	■	■			
CLBWORKS-21 Lower Columbia: Indian Eddy Debris Removal Environmental Review		✓	✓										
CLBWORKS-22 Lower Columbia: Debris Removal at Indian Eddy			x	✓	✓	✓	✓	✓	■	■	■	■	■
CLBWORKS-23 Kin and Arrow: Debris Removal Environmental Review	✓	✓											
CLBWORKS-32 Arrow: Renata New Ramp					✓	✓	✓	✓	■	■*	■*	■*	■*
CLBWORKS-33 Arrow: Syringa New Ramp ¹									■	■	■	■*	■*
CLBWORKS-35 Mid Columbia Bank Erosion Protection and Monitoring			✓	✓	✓	✓	✓		■				
CLBWORKS-36 Mid Columbia Long Term Erosion Monitoring			✓	✓	✓	✓		✓		■			
CLBWORKS-40 Site Prep and Debris Work		✓	✓	✓	✓								
CLBWORKS-41 Kinbasket: Floating Debris Removal													
CLBWORKS-43 Nakusp Boat Ramp							✓	✓	■	■	■*	■*	■*
CLBWORKS-50 Shelter Bay Boat Ramp									■	■	■	■*	■*

¹ Project formerly labelled as CLBWORKS-33 Syringa referred to a WUP project that was never ordered. The name and number was reused for the clause (m) required project at Syringa Park.

Legend:	■	=	Program to be undertaken/initiated in identified year
	■*	=	Boat Ramp Maintenance
	■	=	Pending
	✓	=	Program completed for the year
	x	=	Program started, but encountered operational or hydrological delays

4 Monitoring Programs and Physical Works Terms of Reference

The Monitoring Programs and Physical Works being implemented under the Kinbasket and Arrow Reservoir Recreational Management Plan 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/columbia_river/kinbasket-recreation.html

5 Summary of Monitoring Programs

5.1 CLBMON-14 Boat Ramp Use Study

5.1.1 Status

This monitoring program was initiated in 2010 and will be carried out over 10 years (pending approval of the Mid-Term report). Attached is the Mid-Term report which covers study Years 1 through 4.

6 Summary of Physical Works

6.1 CLBWORKS-4 Kinbasket: Bulldog Creek New Ramp

6.1.1 Status

No new updates from previous annual report.

6.2 CLBWORKS-5 Kinbasket: Valemount Marina Ramp Extension

6.2.1 Status

Further refurbishments related to the floating walkway system are being considered for 2015.

6.3 CLBWORKS-6 Kinbasket: Nixon Creek Ramp Extension

6.3.1 Status

No new updates from previous annual report.

6.4 CLBWORKS-7 Kinbasket: Bush Harbour Ramp Extension

6.4.1 Status

No new updates from previous annual report.

6.5 CLBWORKS-9 Revelstoke Ramp Extend or Build

6.5.1 Status

No new updates from previous annual report.

6.6 CLBWORKS-11 Arrow: Burton New Ramp

6.6.1 Status

In 2013, the ramp was constructed to 430.9 m. Construction was planned for March 2014 to extend the ramp to the toe of design at 425.5 m, but could not be completed due to higher than expected reservoir elevations. Construction work will resume in 2015 during low water to extend the ramp as far as water levels will permit. If water levels do not allow for full completion of this ramp in 2015, a safety curb will be installed at the bottom of the ramp, and in 2016 a company specializing in underwater marine construction will be retained to complete the ramp to the final design elevation of 425.5 m.

6.7 CLBWORKS-12 Arrow: Edgewood Ramp Extension

6.7.1 Status

This physical works was initiated in 2007 and will be constructed to a toe elevation of 425.7 m. Installation of piles, floating walkway and floating breakwaters was completed by Columbia Power Corporation in 2013. In 2014, the plan was to have Columbia Power Corporation return to complete scour protection for the ramp but this work could not be completed due to higher than expected reservoir elevations. In 2015, Columbia Power Corporation will be installing rip rap around the ramp and a transition panel at the toe of the ramp to allow users to drive off the end of the ramp during low water, pending suitable water elevations.

BC Hydro is also continuing to work with local residents to identify a solution for the southern floating log breakwater that addresses site conditions and will meet the needs of the community.

6.8 CLBWORKS-13 Arrow: Fauquier Ramp Extension

6.8.1 Status

Fauquier is currently built down to 423.5 m. Planned work for 2015 will involve adjustments to the breakwater chains to prevent the pontoons from overlapping near the shore and installation of signs on Highway 6 to direct the public to the boat launch.

6.9 CLBWORKS-14 Arrow: McDonald Creek Park Ramp Extension

6.9.1 Status

McDonald is currently built down to 429.5 m. In 2014 the turnaround area was constructed. No work is planned at McDonald for 2015. BC Hydro is reviewing the work completed to date and developing a plan for construction to resume in 2016.

6.10 CLBWORKS-16 Kinbasket: Debris Inventory, Management Strategy and Removal

6.10.1 Status

The second phase of the debris program was approved in May 2013 for implementation in 2013, 2014 and 2015. Surcharge conditions on the Kinbasket were

experienced in 2013 as a result of the Mica 5/6 outage, triggering the high water contingency expenditure of \$200k and associated debris removal activities. A new debris removal strategy and associated budget for the remainder of the WUP will be developed in 2015 and submitted for approval by August 31, 2015.

6.11 CLBWORKS-17 Arrow: Debris Inventory, Management Strategy and Removal

6.11.1 Status

The second phase of the debris program was approved in May 2013 for implementation in 2013, 2014 and 2015. A new debris removal strategy and associated budget for the remainder of the WUP will be developed in 2015 and submitted for approval by August 31, 2015.

6.12 CLBWORKS-18 Kinbasket & Arrow: Feasibility of Boat Ramps

6.12.1 Status

Project is complete.

6.13 CLBWORKS-19 Lower Columbia: Indian Eddy Dredging Environmental and Engineering Assessment

6.13.1 Status

No new updates since previous annual report.

6.14 CLBWORKS-20 Lower Columbia: Indian Eddy Dredging

6.14.1 Status

In 2010, the CWR approved the development of a Terms of Reference for a two-phased approach, in which the first phase was to develop a detailed dredging and material disposal plan including more extensive sampling of the sediment and an assessment of risk. If the risks were deemed acceptable, BC Hydro would submit a second phase Terms of Reference for approval for the actual dredging works. BC Hydro began drafting the Terms of Reference in 2011/2012 and was not completed due to a reorganization and resource constraints.

When BC Hydro restarted the work on the TOR submission in 2014, BC Hydro became aware of groundwater contamination emptying into the site and temporary physical works put in place by Teck Resources Ltd. that will remain until a permanent solution is in place.

As a result, BC Hydro intends to propose additional investigations including more comprehensive sediment testing, stakeholder engagement and a review of socio-economic factors arising from the boat ramp being used as a rescue site. BC Hydro will submit a Terms of Reference for approval of these further investigations by April 30, 2015.

6.15 CLBWORKS-21 Lower Columbia: Indian Eddy Debris Removal Environmental Review

6.15.1 Status

Project is complete.

6.16 CLBWORKS-22 Lower Columbia: Indian Eddy Debris Removal

6.16.1 Status

Debris removal started in 2010 will continue annually until 2020.

6.17 CLBWORKS-23 Kinbasket & Arrow: Debris Removal Environmental Review

6.17.1 Status

Project is complete.

6.18 CLBWORKS-32 Arrow: Renata New Ramp

6.18.1 Status

This physical works was initiated in 2010, constructed in 2013 by Columbia Power Corporation to 431.6 m; and in 2014, Columbia Power Corporation installed the floating breakwater. In 2015, Columbia Power Corporation will resume construction work to complete the ramp as far as water levels will permit. If water levels do not allow for full completion of this ramp in 2015, work will resume in 2016 for the in-water portion of the ramp.

The current design of the Anderson Point boat launch's breakwater has resulted in navigational concerns. In 2015 BC Hydro will be exploring options to relocate the breakwater for the Anderson Point boat launch.

6.19 CLBWORKS-33 Arrow: Syringa New Ramp

6.19.1 Status

The Syringa Boat Launch originally reported as CLBWORKS-33 was the second of two projects identified in a feasibility study for reservoir access between Syringa Creek Park and Renata, as ordered under the Water Use Plan. This Ordered Remissible project was not approved and did not proceed. The project number CLBWORKS-33 has been reassigned to the existing boat launch at Syringa Provincial Park that requires upgrade.

6.20 CLBWORKS-33 Arrow: Syringa Ramp (NEW)

6.20.1 Status

Under Clause (m) of Conditional Water Licence 27066, BC Hydro is required to provide reservoir access at Syringa Provincial Park to its current elevation of 422.0 m. BC Hydro will start planning and design work in 2015 for possible upgrades at Syringa in 2016 or 2017.

6.21 CLBWORKS-35 Mid-Columbia: Bank Erosion Protection and Monitoring Program

6.21.1 Status

This physical works was initiated in 2010, with monitoring undertaken in 2011, 2012, 2013 and scheduled for 2015. The Year 4 (2013) progress report is attached.

6.22 CLBWORKS-36 Mid-Columbia: Long-term erosion monitoring program

6.22.1 Status

Site selection occurred in 2009, and monitoring has occurred in 2010, 2011, 2012, 2014 and scheduled for 2016. The 2014 (Year 4) progress report is in draft format and will be submitted with next year's annual report.

6.23 CLBWORKS-40 Kinbasket: Site Preparation and Debris Work

6.23.1 Status

Project is complete.

6.24 CLBWORKS-41 Kinbasket: Floating Debris Removal

6.24.1 Status

Project is complete.

6.25 CLBWORKS-43 Nakusp Boat Ramp

6.25.1 Status

This physical works was initiated in 2010 and was constructed in 2013 by Columbia Power Corporation to 429.9 m. Columbia Power Corporation will resume construction at Nakusp in 2015 to complete the ramp as far as water levels will allow. Work will resume in 2016 for the in-water portion of the ramp using a company specializing in underwater marine construction, down to the Clause (m) ordered elevation of 420.5 m.

6.26 CLBWORKS-50 Shelter Bay Boat Ramp

6.26.1 Status

Under Clause (m) of Conditional Water Licence 27066, BC Hydro is required to provide reservoir access at Shelter Bay Provincial Park to its current elevation of 423.7 m. BC Hydro will start planning and design work in 2015 for possible upgrades at Shelter Bay in 2016 or 2017.

7 Monitoring Programs and Physical Works Costs

The following table summarizes the Kinbasket and Arrow Recreational Management Plan WUP monitoring programs and physical works costs approved by the Comptroller and the Actual Costs to December 31, 2014.

Table 7-1: Kinbasket and Arrow Recreational Management Plan WUP Monitoring Programs and Physical Works 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
CLB MP3 Kin & Arrow Rec Annual Report	\$47,328	\$5,336	\$29,062	\$34,398	\$12,930	Efficiencies found during the project	No Corrective action required.
C03M14A Boat Ramp Use Study	\$600,475	\$368,772	\$160,575	\$529,347	\$71,128	Efficiencies found during the project	No Corrective action required.
C03M14A Boat Ramp Use Study - OR DM	\$90,000	\$42,897	\$24,382	\$67,278	\$22,722		
C03M14A Boat Ramp Use Study - OR Imp	\$510,475	\$325,875	\$136,193	\$462,068	\$48,407		
C03W05A KIN Valemount Ramp	\$1,107,382	\$976,745	\$159,690	\$1,136,435	(\$29,053)	Further refurbishments are being considered and would require additional budget.	TOR re-submission in February 2015
C03W05A KIN Valemount Ramp - ONR DM	\$31,595	\$15,817	\$8,754	\$24,571	\$7,024		
C03W05A KIN Valemount Ramp - ONR Imp	\$1,075,787	\$960,928	\$150,936	\$1,111,864	(\$36,077)		
C03W06A KIN Nixon Ramp	\$78,880	\$4,692	\$74,188	\$78,880	\$0		
C03W06A KIN Nixon Ramp - ONR DM	\$18,036	\$2,652	\$15,384	\$18,036	\$0		
C03W06A KIN Nixon Ramp - ONR Imp	\$60,844	\$2,040	\$58,804	\$60,844	\$0		
C03W07A KIN Bush Harbr Ramp	\$1,983,480	\$1,802,021	\$90,140	\$1,892,160	\$91,320	Efficiencies found during the project	
C03W07A KIN Bush Harbr Ramp - ONR DM	\$49,993	\$30,875	\$17,581	\$48,456	\$1,537		
C03W07A KIN Bush Harbr Ramp - ONR Imp	\$1,933,487	\$1,771,145	\$72,559	\$1,843,704	\$89,783		
C03W09A REV Extend Or Build	\$28,791	\$28,791	\$0	\$28,791	\$0	Project cancelled	
C03W09A REV Extend Or Build - OR DM	\$10,108	\$10,108	\$0	\$10,108	\$0		
C03W09A REV Extend Or Build - OR Imp	\$18,683	\$18,683	\$0	\$18,683	\$0		
C03W11A ARR Burton Newramp - OR	\$1,240,905	\$1,512	\$3,217,706	\$3,219,219	(\$1,978,314)	Construction costs higher than expected. Construction planned in 2015 pending suitable water elevations.	TOR re-submission in January 2015
C03W11A ARR Burton Newramp - OR DM	\$39,338		\$76,403	\$76,403	(\$37,065)		
C03W11A ARR Burton Newramp - OR Imp	\$1,201,567	\$1,512	\$3,141,303	\$3,142,815	(\$1,941,248)		
C03W11A ARR Burton Newramp - ONR	\$376,597	\$1,707,213	\$84,542	\$1,791,755	(\$1,415,158)	Construction costs higher than expected. Construction costs to Clause (m) elevation reallocated to ONR costs.	TOR re-submission in January 2015
C03W11A ARR Burton Newramp - ONR DM	\$10,615	\$42,408	\$9,441	\$51,849	(\$41,234)		
C03W11A ARR Burton Newramp - ONR Imp OS	\$365,982	\$1,664,805	\$75,101	\$1,739,906	(\$1,373,924)		
C03W12A ARR Edgewood Ramp - ONR	\$2,296,035	\$1,952,073	\$602,064	\$2,554,137	(\$258,102)	Construction costs higher than expected. Construction planned in 2015 pending suitable water elevations.	TOR re-submission in January 2015
C03W12A ARR Edgewood Ramp - ONR DM	\$22,554	\$37,516	\$36,530	\$74,046	(\$51,492)		
C03W12A ARR Edgewood Ramp - ONR Imp	\$2,273,481	\$1,914,558	\$565,533	\$2,480,091	(\$206,610)		
C03W12A ARR Edgewood Ramp - OR	\$0	\$0	\$0	\$0	\$0	Construction costs to Clause (m) elevation under ONR costs.	
C03W12A ARR Edgewood Ramp - OR DM	\$0	\$0	\$0	\$0	\$0		
C03W12A ARR Edgewood Ramp - OR Imp	\$0	\$0	\$0	\$0	\$0		
C03W13A ARR Fauquier Ramp - ONR	\$592,797	\$598,353	\$182,556	\$780,908	(\$188,111)	Construction costs higher than expected and additional refurbishments planned in 2015.	TOR re-submission in January 2015
C03W13A ARR Fauquier Ramp - ONR DM	\$17,310	\$14,820	\$16,531	\$31,352	(\$14,042)		
C03W13A ARR Fauquier Ramp - ONR Imp	\$575,487	\$583,532	\$166,024	\$749,557	(\$174,070)		
C03W13A ARR Fauquier Ramp - OR	\$452,081	\$80,568	\$0	\$80,568	\$371,513	No further OR work is contemplated at this time.	
C03W13A ARR Fauquier Ramp - OR DM	\$17,310	\$10,255	\$0	\$10,255	\$7,055		
C03W13A ARR Fauquier Ramp - OR Imp	\$434,771	\$70,313	\$0	\$70,313	\$364,458		
C03W14A ARR McDonald Ramp - ONR	\$635,336	\$649,523	\$3,285,271	\$3,934,795	(\$3,299,459)	Construction costs higher than expected. Construction to ramp toe design elevation planned in 2016.	TOR re-submission in January 2015
C03W14A ARR McDonald Ramp - ONR DM	\$23,629	\$32,229	\$114,806	\$147,035	(\$123,406)		
C03W14A ARR McDonald Ramp - ONR Imp	\$611,707	\$617,295	\$3,170,465	\$3,787,760	(\$3,176,053)		
C03W14A ARR McDonald Ramp - OR	\$261,344	\$164,428	\$0	\$164,428	\$96,916	No further OR work is contemplated at this time.	
C03W14A ARR McDonald Ramp - OR DM	\$16,065	\$10,065	\$0	\$10,065	\$6,000		
C03W14A ARR McDonald Ramp - OR Imp	\$245,279	\$154,363	\$0	\$154,363	\$90,916		
C03W16A KIN Debris Mgmt - OR	\$1,091,617	\$844,103	\$242,973	\$1,087,076	\$4,541	Efficiencies found during the project	No Corrective action required.
C03W16A KIN Debris Mgmt - OR DM	\$176,524	\$136,385	\$35,598	\$171,983	\$4,541		
C03W16A KIN Debris Mgmt - OR Imp	\$915,093	\$707,718	\$207,375	\$915,093	(\$0)		
C03W16B KIN Debris - ONR	\$1,035,764	\$663,072	\$372,192	\$1,035,265	\$500	Efficiencies found during the project	No Corrective action required.
C03W16B KIN Debris - ONR Imp	\$1,035,764	\$663,072	\$372,192	\$1,035,265	\$500		
C03W17A ARROW Debris Mgmt	\$494,708	\$340,889	\$153,339	\$494,228	\$480	Efficiencies found during the project	No Corrective action required.
C03W17A ARROW Debris Mgmt - OR DM	\$84,476	\$48,176	\$35,820	\$83,996	\$480		
C03W17A ARROW Debris Mgmt - OR Imp	\$410,232	\$292,713	\$117,519	\$410,232	(\$0)		
C03W17B ARR Debris	\$555,904	\$274,254	\$281,650	\$555,904	\$0		No Corrective action required.
C03W17B ARR Debris - ONR Imp	\$555,904	\$274,254	\$281,650	\$555,904	\$0		
C03W18A Feasbly Boat Ramp - OR	\$238,120	\$238,120	\$0	\$238,120	\$0	Project complete	
C03W18A Feasbly Boat Ramp - OR DM	\$53,942	\$53,942	\$0	\$53,942	\$0		
C03W18A Feasbly Boat Ramp - OR Imp	\$184,178	\$184,178	\$0	\$184,178	\$0		
C03W18A Feasbly Boat Ramp - ONR	\$38,722	\$38,722	\$0	\$38,722	\$0	Project complete	No Corrective action required.
C03W18A Feasbly Boat Ramp - ONR DM OS	\$16,122	\$16,122	\$0	\$16,122	\$0		
C03W18A Feasbly Boat Ramp - ONR Imp OS	\$22,600	\$22,600	\$0	\$22,600	\$0		
C03W19A LC Indian Env	\$181,019	\$157,488	\$0	\$157,488	\$23,531	Project complete	No Corrective action required.
C03W19A LC Indian Env - OR DM	\$53,892	\$31,564	\$0	\$31,564	\$22,328		
C03W19A LC Indian Env - OR Imp	\$127,127	\$125,924	\$0	\$125,924	\$1,203		
C03W21A LC Debris Env	\$53,601	\$45,886	\$0	\$45,886	\$7,715	Project complete	No Corrective action required.
C03W21A LC Debris Env - OR DM	\$15,367	\$15,259	\$0	\$15,259	\$108		
C03W21A LC Debris Env - OR Imp	\$38,234	\$30,627	\$0	\$30,627	\$7,607		
C03W22A LC In Ed Debre	\$44,726	\$13,895	\$12,891	\$26,786	\$17,940	Efficiencies found during the project	No Corrective action required.
C03W22A LC In Ed Debre - OR DM	\$16,512	\$2,440	\$1,891	\$4,331	\$12,181		
C03W22A LC In Ed Debre - OR Imp	\$28,214	\$11,455	\$11,000	\$22,455	\$5,759		
C03W23A KIN & ARR Debris Env	\$126,716	\$68,960	\$0	\$68,960	\$57,756	Project complete	
C03W23A KIN & ARR Debris Env - OR DM	\$34,233	\$15,326	\$0	\$15,326	\$18,907		
C03W23A KIN & ARR Debris Env - OR Imp	\$92,483	\$53,633	\$0	\$53,633	\$38,850		
C03W32A ARR Anderson Newramp	\$3,467,488	\$2,624,236	\$3,470,006	\$6,094,242	(\$2,626,754)	Construction costs higher than expected. Construction to ramp toe design elevation planned in 2016.	TOR re-submission in January 2015
C03W32A ARR Anderson Newramp - OR DM	\$60,000	\$40,612	\$24,429	\$65,041	(\$5,041)		
C03W32A ARR Anderson Newramp - OR Imp	\$3,407,488	\$2,583,624	\$3,445,577	\$6,029,201	(\$2,621,713)		
C03W33A ARR Syringa Ramp - OR	\$0	\$0	\$0	\$0	\$0	Project not approved	
C03W33A ARR Syringa Ramp - OR DM	\$0	\$0	\$0	\$0	\$0		
C03W33A ARR Syringa Ramp - OR Imp	\$0	\$0	\$0	\$0	\$0		
C03W33A ARR Syringa Ramp ONR		\$3,813	\$2,521,896	\$2,525,709	(\$2,525,709)	TOR not yet approved.	TOR submission in January 2015
C03W33A ARR Syringa Ramp - ONR DM		\$2,482	\$185,227	\$187,709	(\$187,709)		
C03W33A ARR Syringa Ramp - ONR Imp		\$1,331	\$2,336,669	\$2,338,000	(\$2,338,000)		
C03W35A MCR Bank Erosion	\$712,739	\$612,288	\$57,561	\$669,850	\$42,889	Efficiencies found during the project	No Corrective action required.
C03W35A MCR Bank Erosion - ONR DM	\$72,964	\$46,186	\$16,061	\$62,247	\$10,717		
C03W35A MCR Bank Erosion - ONR Imp	\$639,775	\$566,103	\$41,500	\$607,603	\$32,172		
C03W36A MCR Erosion Mon	\$311,993	\$256,960	\$44,738	\$301,698	\$10,295	Efficiencies found during the project	
C03W36A MCR Erosion Mon - ONR DM	\$70,240	\$40,382	\$23,239	\$63,622	\$6,618		
C03W36A MCR Erosion Mon - ONR Imp	\$241,753	\$216,578	\$21,499	\$238,076	\$3,677		
C03W40A KIN Dbrs Site Prep - OR	\$785,000	\$783,522	\$0	\$783,522	\$1,478	Project complete	
C03W40A KIN Dbrs Site Prep - OR DM	\$78,000	\$52,470	\$0	\$52,470	\$25,530		
C03W40A KIN Dbrs Site Prep - OR Imp	\$707,000	\$731,051	\$0	\$731,051	(\$24,051)		
C03W40B KIN Debris Rmvl - ONR	\$1,800,000	\$1,995,488	\$0	\$1,995,488	(\$195,488)	Project complete	
C03W40B KIN Debris Rmvl - ONR Imp	\$1,800,000	\$1,995,488	\$0	\$1,995,488	(\$195,488)		
C03W41A KIN Fit Dbrs Rmvl	\$42,026	\$1,498	\$0	\$1,498	\$40,528	Project complete	
C03W41A KIN Fit Dbrs Rmvl - ONR DM	\$29,784	\$1,455	\$0	\$1,455	\$28,329		
C03W41A KIN Fit Dbrs Rmvl - ONR Imp	\$12,242	\$43	\$0	\$43	\$12,199		
C03W43A Nakusp Boat Launch	\$3,998,988	\$3,361,046	\$5,401,686	\$8,762,731	(\$4,763,743)	Construction costs higher than expected. Construction planned in 2015 pending suitable water elevations.	TOR re-submission in January 2015
C03W43A Nakusp Boat Launch - ONR DM	\$26,104	\$22,674	\$46,364	\$69,038	(\$42,934)		
C03W43A Nakusp Boat Launch - ONR Imp	\$3,972,884	\$3,338,372	\$5,355,322	\$8,693,693	(\$4,720,809)		
C03W45A Anderson Maintenance	\$120,065	\$10,806	\$54,841	\$65,648	\$54,417	Efficiencies found during the project	
C03W45A Anderson Maintenance - OR DM	\$0	\$3,206	\$4,441	\$7,648	(\$7,648)		
C03W45A Anderson Maintenance - OR Imp	\$120,065	\$7,600	\$50,400	\$58,000	\$62,065		
C03W50A Shelter Bay		\$4,688	\$3,034,454	\$3,039,143	(\$3,039,143)	TOR not yet approved.	TOR submission in January 2015
C03W50A Shelter Bay - ONR DM		\$3,624	\$204,519	\$208,143	(\$208,143)		
C03W50A Shelter Bay - ONR Imp		\$1,065	\$2,829,935	\$2,831,000	(\$2,831,000)		
OR - Ordered Remissible							
ONR - Ordered Non-Remissible							

* Red values in parentheses denote overage.