

Sokolowski, Rosana

From: Hemstrom, Steven
Sent: Wednesday, May 15, 2013 10:10 AM
To: 'Lewis, Stephen'
Cc: Sokolowski, Rosana; Smith, Michelle
Subject: Final 2013 Chelan PUD Rocky Reach Bull Trout IT Report- Observations and incidental take of bull trout at Rocky Reach in 2012
Attachments: Final 2013 Chelan PUD RR bull trout IT Report.pdf

Thanks for reviewing Steve. Attached is the Final report with changes, and below are responses to your comments:

- 1) Statement corrected in the report - No bull trout were released in 2012 because none were captured.
- 2) Rocky Reach does not have separate left, center, and right bank ladders like Rock Island does (each counted separately). RR has a single main ladder on the right bank with tailrace entrances on the right bank, middle spillway, and left bank, plus multiple entrances along the Powerhouse face. Fish are counted at the top of the main ladder where all fish must pass; no way to detect which entrance individual fish used from the tailrace. From radio-telemetry studies in 01-03 and 05-08, I believe most tagged bull trout entered the fishway through the right bank entrance from the tailrace.
- 3) The report is correct as is. Both Tumwater and Dryden fishways are open year-around, except when river flow is very high and during maintenance periods, usually to remove debris (confirmed with Thad Mosey and Lowell Rainey).
- 4) Sentence repaired.

Thanks for your comments and edits Steve, take care.

Steve

From: Lewis, Stephen [mailto:stephen_lewis@fws.gov]
Sent: Tuesday, May 14, 2013 10:35 AM
To: Hemstrom, Steven
Subject: Re: FW: Progress? Draft 2013 Chelan PUD Rocky Reach Bull Trout IT Report- Observations and incidental take of bull trout at Rocky Reach in 2012

Hi Steve-

I do have a few comments/edits for your consideration. These include the following:

- 1.) The discussion related to the Rocky Reach Juvenile Fish Bypass System (page 3) is a bit confusing. You mention no sub-adult bull trout or adult bull trout were captured/observed during daily sampling and yet there is a later discussion of how all bull trout were released back to the river. Please reconcile these seemingly contradictory statements.
- 2.) Thanks for Table 1 on page 4. My suggestion is to add another table which differentiates the use of each respective upstream fishway by bull trout (left bank, right bank, etc.) at Rocky Reach Dam. This type of data organization really assists in assessing bull trout use in relation to any future proposed maintenance activities (section 7 consultation) within the immediate tailrace of the project.

3.) The Dryden and Tumwater Fishway Broodstock and Adult Management section (page 4) appears to be somewhat inaccurate. It's my understanding that the fishways at both facilities are not open year-round and yet this section describes how the fishways are open year-round. Please reconcile this section or excuse my comment if I'm misunderstanding.

4.) The Pacific Lamprey Management Plan section (page 7) appears to have an incomplete sentence. Please revise.

S-

On Mon, May 13, 2013 at 4:14 PM, Hemstrom, Steven <steven.hemstrom@chelanpud.org> wrote:

Hi Steve:

Checking in with you on your review of Chelan's 2012 bull trout observations and take report. Making any progress? I'd like to get it finalized soon if you can get through it. Questions welcome.

Thanks Steve.

Steve

From: Lewis, Stephen [mailto:stephen_lewis@fws.gov]

Sent: Tuesday, April 09, 2013 11:53 AM

To: Hemstrom, Steven

Subject: Re: Draft 2013 Chelan PUD Rocky Reach Bull Trout IT Report- Observations and incidental take of bull trout at Rocky Reach in 2012

Sorry Steve, I just returned from spring break with the fam...

I'll take a look at this today and give you a call if I have any questions (if not too late)...

S-

On Fri, Mar 29, 2013 at 5:08 PM, Hemstrom, Steven <steven.hemstrom@chelanpud.org> wrote:

Hi Steve: Attached is Chelan PUD's draft report on observations and incidental take of bull trout at the Rocky Reach Project. This is due to FERC by April 15. It's only 8 pages total with format, etc., and it's identical to last

year's report updated with 2012 data. If you will please review and make any changes/additions necessary, I will then incorporate those and submit to our FERC folks to submit.

Thanks very much Steve. Let me know if you any questions on this.

Steve

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Stephen T. Lewis

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"If a road has no obstacles, it probably doesn't lead to anywhere." S. Lewis

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**Observations of Bull Trout
During Implementation of the
AFA/HCP and Bull Trout Management Plan
and
FERC License Activities
for the Rocky Reach Project**

**Annual Summary Report
2012 Bull Trout Observations and Incidental Take at the
Rocky Reach Project**

**ROCKY REACH HYDROELECTRIC PROJECT
FERC Project No. 2145**

**Final Report
May 14, 2013**



**Public Utility District No. 1 of Chelan County
Wenatchee, Washington**

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INTRODUCTION

Under the current Rocky Reach Federal Energy Regulatory Commission operating license (FERC 2009), Public Utility District No.1 of Chelan County (Chelan PUD) prepares an annual report by April 15 each year specifying the number of bull trout observed or incidentally taken during activities associated with the Rocky Reach Hydroelectric Project (FERC No. 2145) (Project) which include the implementation of the Anadromous Fish Agreements and Anadromous Habitat Conservation Plan (collectively termed AFA/HCP), the Bull Trout Management Plan (BTMP), the Pacific Lamprey Management Plan, the White Sturgeon Management Plan, the Resident Fish Management Plan, and the Water Quality Management Plan. Additionally, Chelan PUD reports the number of bull trout using the adult fishway to pass Rocky Reach Dam each year, as verified by video monitoring. Information in this report satisfies license requirements for bull trout at Rocky Reach Project and the U.S Fish and Wildlife Service (USFWS) incidental take permit issued to Chelan PUD by the USFWS in its Biological Opinion for the Project.

2012 ROCKY REACH ANADROMOUS HCP AND BTMP ACTIVITIES

Rocky Reach Bull Trout Management Plan

This report satisfies Incidental Take monitoring requirements for BTMP and License activities conducted by Chelan PUD in 2012. Observations of bull trout during these activities in 2012 and any incidental take of fish are contained in this report.

Rocky Reach Juvenile Fish Bypass System

Chelan PUD operated the Juvenile Fish Bypass System (JFBS) and the bypass' sampling facility in 2012 as specified in the Juvenile Fish bypass System Operations Plan (Keller 2012). In 2012, no sub-adult (<305mm) or adult bull trout were captured or observed during daily sampling April through August at the Rocky Reach JFBS. This is a decrease from nine fish observed in 2011. No de-scale or injury was observed on any bull trout in 2012.

Adult Fishway Video Monitoring/Fish Counts

Chelan PUD enumerates both anadromous and resident fish numbers in the Rocky Reach Dam fishway from April 14 through November 15 each year, the normal fishway operating period. Every adult and juvenile bull trout is counted (Table 1) and video-photographed as it passes the counting window before exiting the fishway into the forebay (Figure 1). In 2012, a total of 219 bull trout utilized the adult fishway at Rocky Reach Dam to pass upstream. This number represents an increase of 30 percent over the 2011 passage count (168 fish), a 77 percent increase over 2010 count (124 fish), and 164 percent over the 2009 count (83 fish). Of the fish passing 2012, 175 fish were visually estimated to be greater than 305 mm (12 inches) in length and 44 fish were estimated at less than 305 mm in length (Table 1). The USFWS estimates that bull trout under 305 mm in length are juvenile and sub-adult fish. Fish counting personnel use markers on a backboard in the fish counting window to estimate fish lengths as they pass through the counting chamber (window). No bull trout mortalities or injuries were observed in the adult fishway at Rocky Reach Dam during the 2012 fish counting operations or during the 2012 annual fishway maintenance period.



Figure 1. Adult bull trout (and spring Chinook, foreground on right) passing by the fishway counting window at the top of the Rocky Reach fishway in May, 2012.

Table 1. Number of bull trout passing Rocky Reach in 2012 and estimated size class.

Month	Bull Trout ≤ 305 mm	Bull trout > 305 mm	Total	Mortality
April	1	0	1	0
May	0	41	41	0
June	1	90	91	0
July	1	24	25	0
August	7	7	14	0
September	0	1	1	0
October	12	4	16	
November	22	9	31	0
Total	22	146	219	0

2012-13 Rocky Reach Dam Adult Fishway Maintenance

Chelan PUD also performs required maintenance work on the Rocky Reach adult fishway during off-season periods each year, December-February. The ladder is de-watered the first or second week of December. During the winter 2012 dewatering period on December 18-21, no bull trout were observed and none collected from the upper or lower portion of the fishway. (Thad Mosey, Chelan PUD, personal communication, 2013). Maintenance was completed and the ladder was put back in operation on February 22, 2012.

Dryden and Tumwater Fishway Broodstock and Adult Management

The anadromous broodstock trapping facilities at Tumwater and Dryden dams are part of Rocky Reach Project facilities. The traps are located in the adult fishways of Tumwater Dam and the Dryden

Dam. The fishways at both facilities are open year-around, except during extremely high river flow events and maintenance periods. The traps are operated by Washington Department of Fish and Wildlife (WDFW) for a portion of the year (February through December) to implement Hatchery Genetic Management Plans (HGMP), collect broodstock for Chelan PUD and Yakama Nation’s hatchery programs, and to conduct independent research programs carried out by WDFW and funded by Bonneville Power Administration (BPA).

WDFW utilized the Tumwater trap in 2012 to conduct the ninth year of sampling for a spring Chinook reproductive success study (2004-2012) working under contract to BPA. WDFW reportedly has its own incidental take coverage for bull trout in this study. The Yakama Tribe operated the trap from September through November to capture broodstock for their coho program. The USFWS also utilizes the Tumwater fish trap operations to sort adult spring Chinook for their Leavenworth Fish Hatchery Program. In 2012, WDFW incidentally captured 122 bull trout during the Tumwater trapping operations and another 64 were counted passing, but were not trapped or handled (Mike Hughes, WDFW fisheries technician, personal communication of unpublished data, 2013) (Table 2). Trapped fish are removed immediately from the trap via dip net and placed in the release container under the floor of the sampling room. This vessel is open to the forebay directly when the slide-gate is opened, allowing water-to-water fish transfer. This release method reduces potential for bull trout to re-contact the trap if fish were re-released into the ladder itself. In this manner, bull trout are not retained or anesthetized, and handled minimally to avoid increased effects.

WDFW captured 15 bull trout at the Dryden weir trap in 2012 (Table 3) during the months of July and August C. Deason, WDFW fisheries technician, personal communication, 2013). No bull trout were observed by the Yakama Nation from September 1 through November 30 during their coho broodstock collection (C. Kamphaus, Yakama Nation Fisheries, personal communication 2013). No bull trout were injured or killed during 2012 operations at either the Tumwater or Dryden adult anadromous broodstock traps as reported by WDFW and the Yakama Nation.

Table 2. Number of bull trout trapped by WDFW at the Tumwater fishway in 2012.

Month	Bull trout trapped and released	Bull trout observed not trapped	Bull trout Mortality
February	0	0	0
March	0	0	0
April	2	0	0
May	0	0	0
June	8	0	0
July	108	18	0
August	2	46	0
September	1	0	0
October*	1	0	0
November*	0	0	0
December*	0	0	0
Total	122	64	0

*Passage video still being reviewed by WDFW at time of writing (Hughes 2012)

Table 3. Number of bull trout trapped by WDFW* and the Yakama Nation at the Dryden fishway broodstock trap during anadromous trapping operations in 2012.

Month	Bull trout trapped and released	Bull trout observed not trapped	Bull trout mortalities
July	3	4	0
August	0	8	0
September	0		0
October	1	0	0
November	0		0
Total	3	12	0

* (Deason, C. 2013; Kamphaus, C. 2013. Unpublished data from Yakama Tribe's Coho broodstock trapping at Dryden Dam, 2012)

Predator Control Programs

In 2012, Chelan PUD removed 69,769 northern pikeminnow from the Rocky Reach and Rock Island reservoirs using four control measures. Of those, 49,802 were harvested from Rocky Reach Reservoir. Control programs ran from March through October. Approximately 71 percent (49,802 fish) of the total catch came from Rocky Reach Reservoir (Table 4). No fishway trapping occurred for pikeminnow in 2012, and no bull trout were incidentally captured during any of the pikeminnow control programs applied in Rocky Reach Reservoir .

Table 4. Number of Northern pikeminnow harvested and incidental bull trout captures during 2012 pikeminnow predator control programs in the Rocky Reach Project.

Program	Pikeminnow Removed	Bull trout Incidental Captures	Bull trout Mortalities
USDA Hook & Line	26,183	0	0
Columbia Res Set Lining	20,941	0	0
Rotary Club Derby	1,447	0	0
Chelan PUD Hook and Line	1,231	0	0
Total	49,802	0	0

2012 ROCKY REACH LICENSE ACTIVITIES

Water Quality Management Plan

In 2012, no bull trout were observed, captured, or handled in Rocky Reach Reservoir during implementation of the Rocky Reach Water Quality Management Plan (WQMP). Implementation of the management plan is required under the Project's 401 Water Quality Certification. Eurasian Milfoil control (mechanical cutting and harvest) took place in July and August at recreation sites and public

access points in 2012, but milfoil control is not a WQMP activity or a FERC license activity. Milfoil control is permitted through a Washington Department of Fish and Wildlife WDFW Hydraulic Project Approval (HPA) Permit (expires June 2016) held by Chelan PUD.

Pacific Lamprey Management Plan

No in-water work occurred for the Pacific Lamprey Management Plan in 2012. No bull trout were observed, captured or handled in 2012.

White Sturgeon Management Plan

No bull trout were observed, captured, or handled during white sturgeon supplementation work associated with the Rocky Reach White Sturgeon Management Plan in 2012. In April 2012, Chelan PUD released fewer than 150 PIT tagged juvenile white sturgeon by boat into upper Rocky Reach Reservoir. The release target of 6,500 juvenile fish was not reached in 2012 due to disease complications at the Yakama Nation's Marion Drain Hatchery facility.

Resident Fish Management Plan

Washington Department of Fish and Wildlife (WDFW) conducted field work on Rocky Reach Reservoir for the Resident Fish Management Plan in 2012. WDFW Large Lakes Research Team reported no bull trout were observed, captured, or handled in 2012. WDFW possesses all the necessary state collection permits and ESA federal incidental take permits necessary to conduct the resident fish field sampling that it has conducted for Chelan PUD.

CONCLUSIONS

In 2012, no injuries or lethal incidental take of bull trout was observed during activities associated with the Rocky Reach AFA/HCP, the Bull Trout Management Plan, or other License activities specified for reporting in Ordering Paragraph G, Appendix D of the Rocky Reach FERC License (Table 5).

Table 5. Summary of incidental take of bull trout for the Rocky Reach AFA/HCP and other License implementation activities during 2012.

RR License Activity	# Bull trout observed	# Bull trout handled	Lethal Incidental take
Bull Trout Management Plan	0	0	0
Rocky Reach Fish Bypass System	0	0	0
Rocky Reach Adult Fish Counting	219	0	0
Rocky Reach Fishways Operation/Maintenance	0	0	0
Tumwater and Dryden Broodstock Trapping	76	125	0
Predator Control Programs	0	0	0
Water Quality Management Plan	0	0	0
Pacific Lamprey Management Plan	0	0	0
White Sturgeon Management Plan	0	0	0
Resident Fish Management Plan	0	0	0

Literature Cited

- Deason, C. 2013. Washington Department of Fish and Wildlife. 2013. Personal communication and email containing the number of bull trout incidentally captured during broodstock trapping operations at the Dryden Dam fishway in 2012.
- Federal Energy Regulatory Commission. 2009. Order on offer of settlement and issuing new Rocky Reach license.
- Hughes, M. 2013. Personal communication and email containing the number of bull trout incidentally captured during broodstock trapping operations at the Tumwater fishway. Washington Department of Fish and Wildlife.
- Kamphaus, C. 2013. Personal communication of the number of bull trout trapped during Yakama fisheries Coho broodstock trapping at the Tumwater and Dryden Dam fishway traps. Yakama Nation Fisheries.
- Keller, L. 2012. Rocky Reach Juvenile Fish Bypass System Operations Plan 2012. Public Utility District No. 1 of Chelan County. Wenatchee, WA. February 2012.
- Mosey, T. 2013. Personal communication and email reporting the number of bull trout observed in the Rocky Reach adult fishway in 2012 during the December de-water period. Public Utility District No. 1 of Chelan County.