

From: [Hemstrom, Steven](#)
To: ["Lewis, Stephen"](#)
Cc: [Sokolowski, Rosana](#)
Subject: 2014 Rocky Reach Bull Trout Report
Date: Wednesday, June 18, 2014 3:01:07 PM
Attachments: [Final 2014 Rocky Reach Bull Trout Observations and Incidental Take Repor....pdf](#)

Hi Steve –

Hey, I recently sent you this “Final” Rocky Reach Bull Trout Report, but Rosana just noticed that in that document, I had not changed the Cover Page and footers from DRAFT to FINAL, and I had not put the right Final date on it which should be **June 6, 2014**.

Please supplant that first report (sent to you on June 6) with this one, as this report now reads Final and has the right date of final completion. Sorry about that!

Thanks Steve.

Steve

Steve Hemstrom
Sr. Fisheries Biologist
Chelan PUD Natural Resources
Desk: 509-661-4281
Cell: 509-670-5590

**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
2013 Bull Trout Observations and Incidental Take at the
Rocky Reach Project**

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

**Final Report
June 6, 2014**



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

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INTRODUCTION

Under the Rocky Reach Federal Energy Regulatory Commission operating license (FERC 2009), Public Utility District No.1 of Chelan County (Chelan PUD) prepares an annual report specifying the number of bull trout observed or incidentally taken during activities associated with the Rocky Reach Hydroelectric Project (Project) (FERC No. 2145). This includes the implementation of the Rocky Reach 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, the Water Quality Management Plan, and the Aquatic Invasive Species Monitoring and Control 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 requirements of the U.S Fish and Wildlife Service (USFWS) Incidental Take Authorization issued to Chelan PUD by the USFWS Biological Opinion (2008) for the Project License.

2013 ROCKY REACH ANADROMOUS HCP AND BTMP ACTIVITIES

Rocky Reach Bull Trout Management Plan

No in-water work took place in 2013 for the Bull Trout Management Plan. Observations of bull trout during fish counting and fishway passage activities were documented in 2013 and any incidental take noted.

Rocky Reach Juvenile Fish Bypass System

Chelan PUD operated the Juvenile Fish Bypass System (JFBS) and the bypass sampling facility in 2013 from 1 April to 31 August, as specified in the Juvenile Fish bypass System Operations Plan (Keller 2013). In 2013, no sub-adult (<305mm) or adult bull trout were captured or observed during daily sampling April through August. This is unchanged from in 2012. As no fish were observed, no injury or mortality was known to have occurred to any bull trout in 2013.

Adult Fishway Video Monitoring and Fish Counts

Chelan PUD enumerates both anadromous and resident fish passing through the Rocky Reach Dam fishway from April 14 through November 15 each year. 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 2013, a total of 193 bull trout utilized the adult fishway at Rocky Reach Dam to pass upstream. This number is a small decrease (12%) from the total passage count (216) in 2012. Of the fish passing in 2013, 182 fish were visually estimated to be greater than 305 mm (12 inches) in length and 11 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 behind the fish counting window to estimate fish lengths as they pass by the counting window. No bull trout mortalities or injuries were observed in the adult fishway at Rocky

Reach Dam during the 2013 fish counting operations or during the 2013 annual fishway maintenance period (Mosey 2014).



Figure 1. Adult bull trout (center) and a large scale sucker, (behind) passing by the Rocky Reach fishway counting window on May 19, 2013.

Table 1. Number of bull trout passing Rocky Reach in 2013, estimated size classes, and observed injuries or mortalities in the fishway.

Month	Bull Trout ≤ 305 mm	Bull trout > 305 mm	Total	Injuries	Mortality
April	2	0	2	0	0
May	3	76	79	0	0
June	0	70	70	0	0
July	4	26	30	0	0
August	0	1	1	0	0
September	1	1	2	0	0
October	1	1	2	0	
November	0	7	7	0	0
Total	11	182	193	0	0

2013-14 Rocky Reach Dam Adult Fishway Maintenance

Chelan PUD performs required maintenance work on the Rocky Reach adult fishway during off-season periods each year, December-February. In 2014, the ladder was de-watered on January 20-23, 2014. No bull trout were recovered in the ladder by Chelan PUD fish crews during dewatering fish recovery. Maintenance was performed through 11 March and water-up was completed on 14 March. No bull trout were observed and none recovered from the upper or lower portion of the Rocky Reach fishway during fishway dewatering. (Thad Mosey, Chelan PUD, personal communication, 2014). Maintenance was complete and the ladder was put back in full operation on March 14, 2014.

Dryden and Tumwater Fishway Broodstock and Adult Management

The anadromous broodstock trapping facilities at Tumwater and Dryden dams are part of the 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) and the Yakama Nation for a portion of the year (February through November) to implement Hatchery Genetic Management Plans (HGMP) and collect broodstock for steelhead programs and Coho re-introduction programs. The Yakama Nation traps in September and October specifically for its Coho reintroduction programs. WDFW and NOAA also conduct an independent research program carried out by WDFW using the Tumwater Trap for a spring Chinook Reproductive Success Study (RSS), funded by Bonneville Power Administration (BPA).

WDFW utilized the Tumwater trap in 2013 to conduct the tenth year of sampling for the spring RSS (2004-2013) working under contract to BPA. WDFW reports that it has its own Incidental Take Authorization for bull trout to conduct this study using Tumwater trap as capture facility. In 2013, the Yakama Tribe again 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, but WDFW conducts this sort operation. In 2013, WDFW incidentally captured 116 bull trout during the Tumwater trapping operations and another 201 fish were counted passing but were not trapped or handled (N. Dietrich, WDFW fisheries technician, personal communication of unpublished data, 2014) (Table 2). For trapped fish, WDFW reports non-lethal Take on their Section 6 Report to USFWS. 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 observed (counted) 20 bull trout at the Dryden fishway traps (Table 3) during July-September, 2013 (C. Moran, WDFW Biologist, personal communication, 2014). One bull trout was

trapped and released at Dryden by the Yakama Nation during their Coho broodstock collection from 1 September - 30 November (C. Kamphaus, Yakama Nation Fisheries, personal communication 2014). No bull trout were observed to be injured or killed during 2013 operations at the Tumwater or Dryden adult anadromous broodstock traps as reported by WDFW and the Yakama Nation.

Table 2. Number of bull trout trapped, or observed, by WDFW at the Tumwater fishway trap in 2013.

Month	Bull trout trapped and released	Bull trout observed not trapped	Total	Bull trout Mortalities
February	0	0	0	0
March	0	0	0	0
April	1	0	1	0
May	0	0	0	0
June	76	0	76	0
July	120	97	217	0
August	2	15	17	0
September	1	3	4	0
October	1	1	2	0
November	0	0	0	0
December	0	0	0	
Total	201	116	317	0

Table 3. Number of bull trout trapped by WDFW and the Yakama Nation at the Dryden fishway broodstock trap during anadromous trapping operations in 2013*.

Month	Bull trout trapped and released	Bull trout observed not trapped	Total	Bull trout Mortalities
July	0	14	14	0
August	0	2	2	0
September	4	4	8	0
October	0	0	0	0
November	0	0	0	0
Total	4	20	24	0

* 2013 data provided by C. Moran and N. Dietrich - WDFW, and C. Kamphaus , Yakama Nation Fisheries.

Pikeminnow Control Programs

In 2013, Chelan PUD removed 80,552 northern pikeminnow (*Ptychocheilus oregonensis*) from the Rocky Reach and Rock Island reservoirs using four control methods. Of the total, 50,092 fish (62.19%) were harvested from Rocky Reach Reservoir (Table 4). Control programs ran from February through October. No fishway trapping was conducted by Chelan PUD for pikeminnow in 2013. One

bull trout was incidentally captured by USDA hook-and-line anglers on 30 May at river mile 485 (12 miles above Rocky Reach Dam), but was released in good condition on 30 May back to Rocky Reach Reservoir.

Table 4. Number of Northern pikeminnow harvested and incidental bull trout captures during 2013 pikeminnow predator control programs in the Rocky Reach Project.

Program	Pikeminnow Removed	Bull trout Incidental Captures	Bull trout Mortalities
USDA Hook & Line	26,545	1	0
Columbia Res Set Lining	21,231	0	0
Rotary Club Derby*	1,766	0	0
Chelan PUD Hook and Line	550	0	0
Total	50,092	0	0

*Chelan PUD contributes \$10,000 to Rotary Club pikeminnow fishing derby. All anglers must possess a valid WA State fishing license

2013 ROCKY REACH LICENSE ACTIVITIES

Water Quality and Aquatic Invasive Species Management Plans

In 2013, no bull trout were observed, captured, or handled in Rocky Reach Reservoir during implementation of the Rocky Reach Water Quality Management Plan (WQMP) or Aquatic Invasive Species Monitoring and Control Plan. Eurasian Milfoil control (mechanical cutting and harvest) took place in July and August at recreation sites and public access points in 2013, 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. Activities performed in 2013 under the Aquatic Invasive Monitoring and Control Plan included Horizontal zooplankton tow net sampling at three locations throughout the Project (Lincoln Rock and Daroga State Parks and Chelan Falls Park). This sampling is required by for Aquatic Invasive Species Plan. The samples are taken at depths of 15-20 feet when transect depth allows. Sampling occurred two to four times between June and September, 2013 to detect the presence of invasive mussel larvae in the drift. This work is conducted consistent with the approved Monitoring Plan. The tow net is a very small cylindrical (cone shaped) net towed from a boat. Slow upstream troll speeds make it very unlikely that adult or juvenile bull trout could be captured in the small net. No bull trout were handled or observed or during sampling efforts.

Pacific Lamprey Management Plan

No in-water work occurred for the Pacific Lamprey Management Plan in 2013. No bull trout were observed, captured or handled in 2013.

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 2013. In April 2013, Chelan PUD released 7,979 PIT tagged juvenile white sturgeon by boat at several release sites within Rocky Reach Reservoir.

Resident Fish Management Plan

Washington Department of Fish and Wildlife conducted no field work for resident fish monitoring in Rocky Reach Reservoir in 2013. The next resident fish study to evaluate predator abundance, resident species composition, and presence-absence of exotic species will take place in 2023.

CONCLUSIONS

In 2013, non-lethal Take of a single (1) bull trout occurred during Chelan PUD's pikeminnow control programs. This fish was released in good condition. During all other License and HCP activities for the Rocky Reach Project, no injuries or lethal incidental take of bull trout occurred in 2013. Table 5 summarizes 2013 bull trout Take for License activities specified in Ordering Paragraph G, Appendix D of the Rocky Reach FERC License.

Table 5. Summary of incidental take of bull trout for the Rocky Reach AFA/HCP and other Rocky Reach License implementation activities during 2013.

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	193	0	0
Rocky Reach Fishways Operation/Maintenance	0	0	0
Tumwater and Dryden Broodstock Trapping	136	205	0
Predator Control Programs	1	1	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

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