



PUBLIC UTILITY DISTRICT NO. 1 of CHELAN COUNTY

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March 23, 2011

Mr. Steve Lewis
U.S. Fish and Wildlife Service
Central Washington Field Office
215 Melody Lane, Suite 119
Wenatchee, Washington 98801

Subject: Rocky Reach Hydroelectric Project, FERC No. 2145
Bull Trout Monitoring Report - 2010

Dear Mr. Lewis:

On February 19, 2009, the Commission issued a new license for the Rocky Reach Project.¹ In accordance with Ordering Paragraph E, Article 4 of Appendix B, and the Reporting Requirements of Appendix D of the new license, Chelan PUD is required to submit subsequent annual reports (starting 2010) for the Rocky Reach Project to the U.S. Fish & Wildlife Service Central Washington Field Office in Wenatchee, Washington.

In accordance with above requirements, the Public Utility District No. 1 of Chelan County, Washington, respectfully submits the *2010 Annual Report – Observations of Bull Trout during Implementation of AFA/HCP Activities and the Bull Trout Management Plan for the Rocky Reach Project*. The report includes the number of bull trout observed, or incidentally taken if any, during implementation of activities specific to the Anadromous Fish Agreement and Habitat Conservation Plan activities. Additionally, the report provides the number of bull trout using the adult fishway, as verified by video monitoring.

If you have any questions regarding this filing, please contact me at (509) 661-4180.

Sincerely,

Michelle Smith
Licensing and Compliance Manager

cc: Jessie Gonzales, Jim Craig and R.D. Nelle, USFWS
Keith Truscott, Chelan PUD
Steve Hemstrom, Chelan PUD

Attachment: 2010 Annual Report

¹ 126 FERC ¶ 61,138 (2009)

Observations of Bull Trout during Implementation of AFA/HCP Activities and the Bull Trout Management Plan for the Rocky Reach Project

**Annual Summary Report on 2010 Bull Trout Observations
and Incidental Take at the Rocky Reach Project**

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

March 15, 2011



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

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INTRODUCTION

Under the current Rocky Reach FERC operating license, Chelan PUD prepares an annual report by April 15 each year specifying the number of bull trout observed or incidentally taken during implementation of the Anadromous Fish Agreements and Habitat Conservation Plan (collectively termed HCP) and bull trout management plan (BTMP) for the Rocky Reach Project. Additionally, Chelan PUD must report the number of bull trout using the adult fishway to pass Rocky Reach Dam, as verified by video monitoring. Information in this report satisfies license requirements for bull trout at Rocky Reach Project.

Bull Trout Management Plan

Chelan PUD completed initial requirements of the Rocky Reach Bull Trout Management Plan (BTMP) by completing radio-telemetry studies and Incidental Take monitoring of bull trout at the Project. Chelan PUD filed a 3-year summary report with the U.S. Fish and Wildlife Service (USFWS) and FERC on April 14, 2009. An additional one-year radio-telemetry study to verify Incidental Take levels at Rocky Reach will occur in 2018-2019 as required in the Bull Trout Management Plan.

Rocky Reach Juvenile Fish Bypass System

Chelan PUD operated the Juvenile Fish Bypass System (JFBS) and the Juvenile Bypass Sampling Facility (JFBS) in 2010 as specified in the Rocky Reach HCP and FERC operating license. In 2010, 11 sub-adult bull trout were captured during daily sampling for juvenile salmon/steelhead at the Rocky Reach JFBS in the period April 1 – August 31 (Table 1). No de-scale or injury was observed on any bull trout and all fish appeared to be in good condition. All bull trout were released back to the river in good condition at the JFBS outfall pipe.

None of the bull trout sampled in 2010 at the JFBS contained a PIT tag. Only one juvenile bull trout containing a PIT tag has been re-captured at the JFBS. This fish was first tagged by a USFWS crew at the Entiat River juvenile salmon screw-trap on May 22, 2009, and was recaptured in June 2009 at the JFBS).

Table 1. Bull trout observed at the Rocky Reach Juvenile Bypass Sampling Facility, 2010

Month	# Observed	Injuries	Mortalities	PIT Recaps
April	1	0	0	0
May	4	0	0	0
June	6	0	0	0
July	0	0	0	0
August	0	0	0	0
Total	11	0	0	0

Adult Fishway Video Monitoring/Fish Counts

In 2010, a total of 124 bull trout utilized the adult fishway at Rocky Reach Dam to pass upstream of the Project (Table 2), an increase of 49% from 2009 (83 fish). Of these fish, 109 were visually estimated to be greater than 305 mm (12 inches) in length and 15 fish were estimated to be less than 305 mm in length. Markers on a backboard in the fish counting

window are used to estimate length as fish pass through the counting chamber (window). Bull trout were videotaped and counted (24-hour complete counts) from April 14 – November 15, 2010 during the normal fishway operation period at the Project. No bull trout mortality or injuries were observed in the adult fishway at Rocky Reach Dam during fish counting operations or during maintenance periods on the fishway in 2010.

Table 2. Bull trout adult fishway passage counts by month at Rocky Reach Dam, 2010.

Month	< 305 mm	> 305 mm	Total	Injuries/Mortality
April	0	0	0	0
May	0	24	24	0
June	4	57	61	0
July	1	12	13	0
August	7	1	8	0
September	0	1	1	0
October	1	4	5	
November	2	10	12	0
Total	15	109	124	0

2010-11 Rocky Reach Dam Adult Fishway Maintenance

Each year, Chelan PUD performs required maintenance work on the Rocky Reach adult fishway during off-season periods. The ladder is de-watered around November 30. Maintenance work is completed between December 1 and February 28. The ladder is watered-up and back in operation by March 1. During the four-day dewatering process, November 30 - December 3, a total of four bull trout were collected from the ladder and released back into the tailrace of the dam. Approximate sizes of these fish were: 1 - 178mm, 2 – 228 mm, and 1 – 406 mm. The fisheries biologist who oversees the fishway maintenance operation reported that the bull trout were healthy and in good condition when re-released (Thad Mosey, Chelan PUD, personal communication, 2011).

Dryden and Tumwater Dam Fishway Broodstock Traps

The Tumwater and Dryden Dam anadromous broodstock traps (Rocky Reach Project facilities) are located in the adult fishways of Tumwater and Dryden Dams. The traps are operated by Washington Department of Fish and Wildlife (WDFW) for a portion of the year (July & August) to implement Hatchery Genetic Management Plan (HGMP) goals and to collect broodstock for Chelan PUD HCP hatchery programs. The Yakama Tribe operates the trap from September – November to capture broodstock for their coho program. In 2010, WDFW incidentally captured 66 bull trout during the Tumwater trapping operations (Table 3), April through September (Nate Dietrich, WDFW fisheries technician, personal communication 2011). These fish were not retained or anesthetized to avoid handling effects so length measurements were not taken. All bull trout were released upstream of the dam and fish ladder. The Dryden Dam trap captured 9 bull trout in 2010 (Table 4) during trapping months of July and August (Chad Herring, WDFW fisheries technician, personal communication, 2011), and no bull trout from September - November (Greg Robison, Yakama Nation Fisheries, Personal Communication 2011). No bull trout were injured or killed during 2010 operations at either the Tumwater or Dryden adult anadromous broodstock traps.

Table 3. Number of bull trout trapped at the Tumwater Dam fishway broodstock trap during anadromous trapping operations in 2010.

Month	Bull trout trapped and released	Bull trout injuries/mortalities
April	1	0
May	0	0
June	9	0
July	47	0
August	8	0
September	1	0
Total	66	0

Table 4. Number of bull trapped in the Dryden Dam Fishway broodstock trap during anadromous trapping operations in 2010.

Month	Bull trout trapped and released	Bull trout injuries/mortalities
July	5	5
August	4	4
September	0	0
October	0	0
November	0	0
Total	9	0

Predator Control Programs

Chelan PUD removed Pikeminnow from the Rocky Reach Project using four control programs in 2010 (Table 5). No fishway trapping occurred for pikeminnow in 2010, and no bull trout were incidentally captured while carrying out the four other pikeminnow control programs in Rocky Reach Reservoir in 2010.

Table 5. Number of pikeminnow harvested and the number of bull trout captured incidentally during pikeminnow predator control programs at the Rocky Reach Project in 2010.

Program	Pikeminnow Removed	Bull trout Incidental Captures	Injuries/Mortalities
USDA Hook & Line	30,621	0	0
Columba Res Set Lining	14,885	0	0
Rotary Club Derby	2,514	0	0
Adult Fishway Traps	0	0	0
Chelan Hook & Line	956	0	0
Total	48,976	0	0

Water Quality Management Plan

No bull trout were observed, captured or handled during implementation of the Rocky Reach Water Quality Management Plan in 2010.

Pacific Lamprey Management Plan

No bull trout were observed, captured or handled during any activity associated with implementation of the Rocky Reach Pacific Lamprey Management Plan in 2010. While the Rocky Reach fishway is dewatered during its normal maintenance/pump work period December 2010 - March 1, 2011, a half-duplex PIT tag detection system will be installed in the ladder to conduct lamprey passage studies. This installation does not affect hydraulics or structures within the fishway.

White Sturgeon Management Plan

No bull trout were observed, captured, or handled during white sturgeon brood stock capture or any other activity associated with implementation of the Rocky Reach White Sturgeon Management Plan in 2010. In early April 2011, approximately 6,500 PIT tagged juvenile white sturgeon will be planted into Rocky Reach Reservoir to comply with license implantation requirements. A subsample of 40 of these fish will be acoustic tagged and monitored April – June 2011 for downstream movement to determine if fish exit Rocky Reach Reservoir.

Resident Fish Management Plan

No field work occurred and no bull trout were observed, captured, or handled during any activity associated with implementation of the Rocky Reach Resident Fish Management Plan in 2010. Reservoir fish sampling conducted by WDFW at Rocky Reach will take place in 2011 for the Resident Fish Management Plan study. WDFW Large Lakes Research Team possesses all the necessary state and federal permits necessary to conduct this work.

HCP Juvenile Salmon/Steelhead Survival Studies

No bull trout were observed, captured, or handled during activities associated with the juvenile yearling Chinook salmon survival study at Rocky Reach in 2010. A second yearling Chinook survival study using methods identical with 2010 will take place in April-May, 2011 at the Rocky Reach Project.

References Cited

- Dietrich, Nathan. Washington Department of Fish and Wildlife. 2011. Personal communication on bull trout observations during broodstock trapping operations at Tumwater and Dryden fishways in 2010
- Herring, Chad. Washington Department of Fish and Wildlife. 2011. Personal communication and email containing the number of bull trout incidentally captured during broodstock trapping operations at the Dryden Dam fishway.
- Mosey, Thad. Public Utility District No. 1 of Chelan County. 2011. Personal communication and email with the number of bull trout encountered in the Rocky Reach adult fishway in 2010 during ladder de-water, and condition of fish when re-released.
- Robison, G. Yakama Nation Fisheries. 2011. Personal communication of bull trout observations during Coho broodstock trapping at the Dryden fishway broodstock trap in 2010.