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Ms. Jessica Gonzales
Wenatchee Office Lead
Central Washington Field Office
U. S. Fish and Wildlife Service
215 Melody Lane, Suite 119
Wenatchee, WA 98801-5933

April 15, 2015

Subject: Wells Hydroelectric Project – FERC Project No. 2149
2014 Bull Trout Management Plan and Incidental Take Annual Report

Dear Ms. Gonzales:

Public Utility District No. 1 of Douglas County, Washington (Douglas PUD), licensee for the Wells Hydroelectric Project No. 2149 (Wells Project) respectfully submits the attached Bull Trout Management Plan and Incidental Take Annual Report for Calendar Year 2014 (Appendix A). In addition, we have attached the consultation record that illustrates the collaborative review process completed while developing this document (Appendix B). This report is being filed in compliance with the reporting requirements found in the *Biological Opinion for the Proposed Relicensing of the Wells Hydroelectric Project* issued by the United States Fish and Wildlife Service (USFWS) on March 16, 2012 and as found in Appendix E of the new Federal Energy Regulatory Commission (FERC) license for the Wells Project.

The Biological Opinion, as adopted by the FERC license order for Wells Dam, requires Douglas PUD to submit its annual report to the USFWS, Central Washington Field Office on or before April 15 during each year of the license. The report is required to describe the work completed and the number of bull trout, if any, observed and /or incidentally taken during the course of implementing the license. Because the measures required by the FERC license are largely consistent with the measures found in the Aquatic Settlement Agreement's Bull Trout Management Plan (BTMP) and because the reporting requirements for the BTMP, Biological Opinion, Clean Water Act section 401 Water Quality Certification, and Federal Power Act section 18 Fishway Prescription, the 2014 Bull Trout Management Plan and Incidental Take Annual Report (this report) will be used to demonstrate compliance with all five of Douglas PUD's Wells Project bull trout obligations.

If you have any questions or require further information related to the 2014 Bull Trout Management Plan and Incidental Take Annual Report, please feel free to contact Andrew Gingerich at (509) 881-2323 or andrewg@dcpud.org.

Sincerely,

Shane Bickford
Natural Resources Supervisor

Enclosure: Appendix A –2014 Bull Trout Management Plan and Incidental Take Annual Report
Appendix B – Pre-filing Consultation Record Supporting the Approval of the 2014 Bull Trout Management Plan and Incidental Take Annual Report

Cc: Aquatic Settlement Work Group
Steve Lewis – USFWS, Wenatchee
Jeff Krupka – USFWS, Wenatchee
Judy Neibauer – USFWS, Wenatchee
Andrew Gingerich – Douglas PUD
Chas Kyger – Douglas PUD

APPENDIX A

2014 BULL TROUT MANAGEMENT PLAN AND INCIDENTAL TAKE ANNUAL REPORT

2014 BULL TROUT MANAGEMENT PLAN AND INCIDENTAL TAKE ANNUAL REPORT

WELLS HYDROELECTRIC PROJECT

FERC PROJECT NO. 2149

April 15, 2015

Prepared by:
Public Utility District No. 1 of Douglas County
East Wenatchee, Washington

EXECUTIVE SUMMARY

The Bull Trout Management Plan (BTMP) and Incidental Take Annual Report includes information on existing bull trout measures required by the Wells Hydroelectric Project (Wells Project or Project) Federal Energy Regulatory Commission (FERC) operating license including the U.S. Department of Interior's Federal Power Act section 18 Fishway Prescriptions; the Clean Water Act section 401 Water Quality Certification; and Endangered Species Act (ESA) section 7 bull trout consultation for the relicensing of the Wells Project. The 2012 Biological Opinion (BO) for the Wells Project (resulting from ESA consultation) requires Public Utility District No. 1 of Douglas County (Douglas PUD) to monitor incidental take during Wells Project license implementation activities and submit a bull trout annual take report to the Central Washington Field Office of the U.S. Fish and Wildlife Service (USFWS) on or before April 15th each year. Article 406 of the license requires Douglas PUD to submit an annual report of management plan activities by May 31st of each year.

Since measures required by the BO are largely consistent with the measures found in the BTMP and because the reporting requirements for the BTMP, BO, Clean Water Act section 401 Water Quality Certification, and the FERC license are largely consistent, this 2014 Bull Trout Management Plan and Incidental Take Annual Report will be used to demonstrate compliance with all of Douglas PUD's bull trout obligations for the Wells Project.

The goal of the BTMP is to identify, monitor, and address impacts on bull trout (*Salvelinus confluentus*) resulting from the Wells Project in a manner consistent with the USFWS Bull Trout Recovery Plan and the terms of the Section 7 Incidental Take Statement (ITS). The BTMP is intended to continue the implementation of management activities to protect bull trout during the new license term in a manner consistent with the original Wells Bull Trout Monitoring and Management Plan (Douglas 2004). The Protection, Mitigation and Enhancements presented within the BTMP are designed to meet the following objectives:

Objective 1: Operate the upstream fishways and downstream bypass systems in a manner consistent with the Wells Project Habitat Conservation Plan (HCP). In 2014, Douglas PUD maintained safe, efficient and timely passage through the downstream juvenile fish bypass system and upstream adult fishway passage structures for bull trout and conducted video monitoring of the Wells Dam fishway viewing windows during the fish passage season. Douglas PUD continued to operate the juvenile fish bypass system at Wells Dam in accordance with criteria outlined in the HCP.

Objective 2: Identify any adverse Project-related impacts on adult and sub-adult bull trout passage. Douglas PUD will implement the year 5 Passage Evaluation Study in 2017 or earlier if the 5-year average adult bull trout count of 60 fish increases more than two times. No significant changes in the operation of the fish ladders or hydrocombine have been implemented or are proposed that would trigger the implementation of bull trout passage evaluation. During 2013, Douglas PUD, in consultation with the Aquatic Settlement Work Group (Aquatic SWG), filed a letter with the FERC recommending that Douglas PUD should postpone the Off-Project Passage Evaluation (i.e., Twisp Weir Bull Trout Study) until year five (2017) of the new license when the Bull Trout Passage and Enumeration Study is scheduled to take place at Wells Dam, thus

combining both studies into a single study. In addition, the USFWS submitted a letter to FERC requesting deferral of the study. FERC approved the deferral of the Twisp Weir Bull Trout Radio Telemetry Study on October 15, 2013.

During 2014, sub-adult bull trout were not observed at Wells Dam and fewer than 10 sub-adult bull trout have been observed at Wells Dam in all monitoring years. Adult counts remained below twice the 5-year average. As such, no new bull trout related monitoring activities were proposed or implemented.

Objective 3: Implement reasonable and appropriate options to modify upstream fishway, downstream bypass, or operations if adverse impacts on bull trout are identified and evaluate the effectiveness of these measures. No adverse impacts to bull trout were identified in 2014.

Objective 4: Periodically monitor for bull trout entrapment or stranding during low Wells Reservoir elevations (i.e., below 773' mean sea level [msl]). On Sunday February 23, 2014 at 10:00 PM the Project forebay reached 773' msl. As such, Douglas PUD implemented the Bull Trout Stranding, Entrapment and Take Study Plan (BTSET Plan) on February 24, 2014. No bull trout were found during this low reservoir event.

Objective 5: Participate in the development and implementation of the USFWS Bull Trout Recovery Plan including information exchange and genetic analysis. Should bull trout be delisted, the Aquatic SWG will re-evaluate the needs and objectives of the BTMP. Following the issuance of a new Draft Recovery Plan in 2014, Douglas PUD participated in a regional meeting held by the USFWS in Wenatchee, WA on November 24, 2014. This meeting focused on recovery planning for the Mid-Columbia Recovery Unit. In 2014, genetic samples were collected for all of the bull trout captured at the Twisp Weir. Samples will be analyzed if requested by the Aquatic SWG. Genetic samples will be taken at Wells Dam in year ten of the new license.

Objective 6: Identify any adverse impacts of Project-related hatchery operations on adult and sub-adult bull trout. In 2014, incidental captures of adult bull trout exceeded the USFWS BO take value of 118, with 215 bull trout observed at the Twisp Weir. In addition 179 sub-adult bull trout were encountered in the Twisp River during a Hatchery Genetic Management (HGMP) action for spring Chinook and steelhead in 2014. In both cases, the USFWS was contacted to discuss high levels of bull trout encounters in the Twisp River. Per USFWS recommendation, the Twisp River Weir Operations Plan is being developed in consultation with the USFWS to reduce bull trout encounters at the Twisp River Weir in 2015 and all subsequent years and HGMP actions are being modified to reduce bull trout encounters.

1.0 INTRODUCTION

The Bull Trout Management Plan (BTMP) is one of six resource management plans developed by Public Utility District No. 1 of Douglas County (Douglas PUD). The BTMP directs the implementation of measures to mitigate Wells Hydroelectric Project (Wells Project or Project) impacts, if any, on bull trout (*Salvelinus confluentus*) and to monitor incidental take of bull trout at the Wells Project. The BTMP directs the long-term management of bull trout in the Wells Project. Additionally, the BTMP is intended to continue implementation activities aimed at protecting bull trout in a manner consistent with measures specified in the original Wells Bull Trout Monitoring and Management Plan (WBTMMP) (Douglas 2004).

To ensure active stakeholder participation and support, Douglas PUD developed all of the resource management plans found in the Aquatic Settlement Agreement in close coordination with agency and tribal natural resource managers (Aquatic Settlement Work Group or Aquatic SWG). Entities invited to participate in the Aquatic SWG include the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), Washington Department of Ecology (Ecology), Washington State Department of Fish and Wildlife (WDFW), the Confederated Tribes of the Colville Reservation (Colville), the Confederated Tribes and Bands of the Yakama Nation (Yakama Nation), and Douglas PUD.

In addition to the requirements found within the BTMP, the Endangered Species Act (ESA) section 7 Consultation and the Biological Opinion (BO) for the relicensing of the Wells Project, the Clean Water Act section 401 Water Quality Certification, and the Federal Energy Regulatory Commission (FERC) license including the Federal Power Act section 18 Fishway Prescription identify several additional bull trout related requirements associated with the continued operation of the Wells Project.

Since measures required by the BO are largely consistent with the measures found in the BTMP and because the reporting requirements for the BTMP, BO, Clean Water Act section 401 Water Quality Certification, and the FERC license are largely consistent, this 2014 Bull Trout Management Plan and Incidental Take Annual Report will be used to demonstrate compliance with all of Douglas PUD's bull trout obligations for the Wells Project.

2.0 BACKGROUND

2.1.1 2005-2008 Project Bull Trout Study

On December 10, 2003, the USFWS received a request from the FERC for formal consultation to determine whether the proposed incorporation of the Wells Project Habitat Conservation Plan (HCP) into the FERC license for operation of the Project was likely to jeopardize the continued existence of the Columbia River distinct population segment (DPS) of ESA-listed bull trout, or destroy or adversely modify proposed bull trout critical habitat. In response to the FERC request and based upon the results of the 2001-2003 study, which suggested that continued operations were not likely to jeopardize bull trout, the USFWS filed a BO and Incidental Take Statement

(ITS) with FERC. On June 21, 2004, FERC issued an order incorporating the HCP and the terms and conditions of the ITS into the FERC license for the Project.

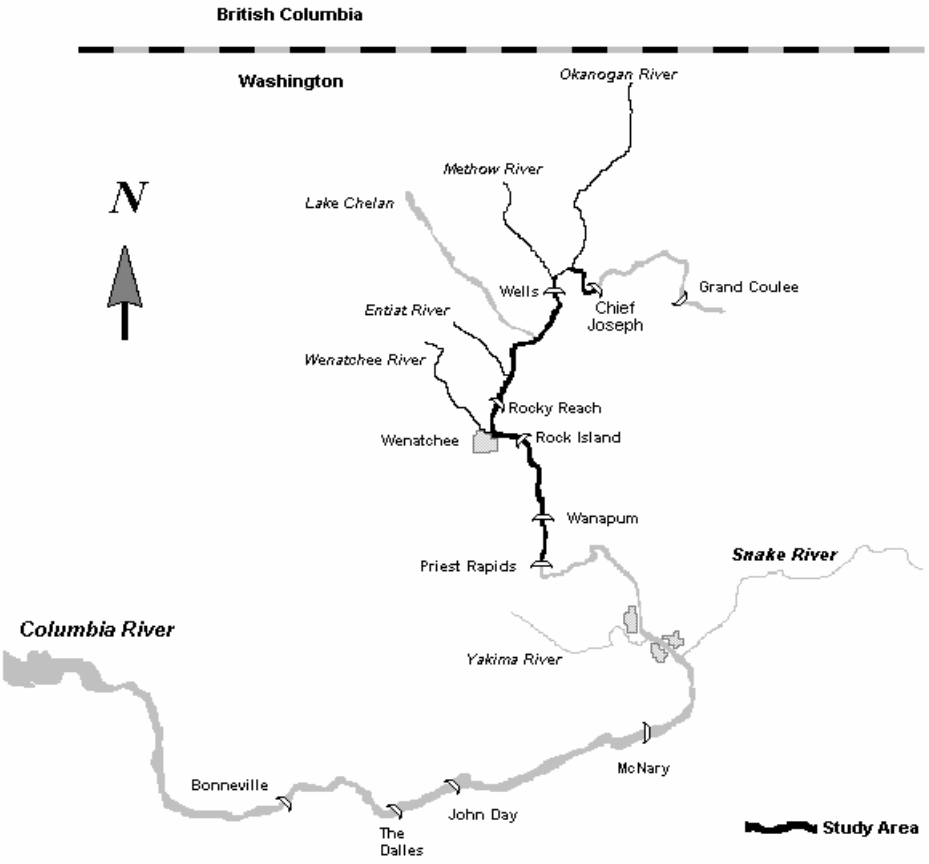

Figure 2.3-1 Study area for assessing migration patterns of bull trout in the mid-Columbia River (2001-2003). Fixed radio-telemetry sites monitored the movement of bull trout near Priest Rapids, Wanapum, Rock Island, Rocky Reach and Wells dams. Fixed sites placed in the Wenatchee, Entiat, Methow and Okanogan rivers monitored time of entry and exodus of bull trout in large tributaries of the mid-Columbia River.

In 2004, Douglas PUD, in consultation with the USFWS and as required under the HCP BO, developed the WBTMMP. The goal of the WBTMMP is to continue monitoring and evaluating bull trout in the Project to quantify and address, to the extent feasible, potential Project impacts on bull trout. Implementation of WBTMMP measures specifically include: (1) address ongoing Project impacts through the life of the existing operating license; (2) provide consistency with recovery actions as outlined in the USFWS bull trout recovery plan; and (3) monitor and minimize the extent of incidental take of bull trout, if any, consistent with Section 7 of the ESA. WBTMMP implementation started in 2005 and continued through the spring of 2008. Objectives of the plan include identifying Project impacts, if any, on upstream and downstream passage of adult and sub-adult bull trout through Wells Dam, investigating the potential for sub-adult entrapment or stranding in off-channel or backwater areas of Wells Reservoir, and

identifying the core areas and local populations, as defined in the 2002 USFWS Bull Trout Recovery Plan, of bull trout that utilize the Project.

To address Project impacts, if any, on upstream and downstream passage of adult bull trout, Douglas PUD captured and radio-tagged 6, 10, and 10 adult bull trout at Wells Dam in 2005, 2006, and 2007, respectively (LGL and Douglas PUD, 2008). In 2005, all six fish traveled upstream into the Methow River and no downstream passage events were recorded. Travel time from release (after tagging) until entrance into the Methow River ranged from 7 hours to 12 days. In 2006, in addition to the 10 adult bull trout radio-tagged at Wells Dam, the USFWS radio-tagged 13 bull trout in the Methow River Core Area and Public Utility District No.1 of Chelan County (Chelan PUD) released 29 tagged bull trout from Rocky Reach and Rock Island dams. In total, 13 downstream passage events and 8 upstream passage events were recorded at Wells Dam in 2006. There were no observed instances of bull trout mortality resulting from these passage events. In 2007, 10 bull trout were tagged at Wells Dam, the USFWS tagged 5 bull trout in the Methow River Core Area, and Chelan PUD released 19 tagged bull trout from Rocky Reach and Rock Island dams. In total, one downstream passage event and three upstream passage events were recorded at Wells Dam in 2007. Similar to 2006, no instances of bull trout mortality were observed resulting from these passage events. From 2005 to 2008 (all radio-tagged fish combined), 25 downstream passage events and 52 upstream passage events by 40 individual bull trout were recorded at Wells Dam with no observations of bull trout injury or mortality (LGL and Douglas PUD, 2008). From 2005-2007, no adult or sub-adult bull trout were observed utilizing Wells Dam fishways during the winter monitoring period (typically November 16 to April 30). Monitoring of radio-tagged adult bull trout ended in June 2008.

To address potential Project-related impacts on sub-adult bull trout, fish were opportunistically tagged with passive integrated transponder (PIT) tags when encountered during standard fish sampling operations at Wells Dam or during off-Project tributary smolt trapping activities. In 2005, 2006, 2007, and 2008 a total of 16, 20, 14, and 17 sub-adult bull trout were PIT-tagged during tributary smolt sampling activities, respectively. No sub-adult bull trout were observed during Wells Dam fish sampling operations or by the adult PIT-tag detection system in the fishways. Over the 2005-2008 period, no sub-adult bull trout were observed utilizing Wells Dam fishways during the winter period.

In 2005, Douglas PUD collected high resolution bathymetric information of Project waters to address the potential for entrapment or stranding of bull trout in off-channel or backwater areas of the Wells Reservoir. This data combined with Wells inflow patterns, reservoir elevations, and backwater curves would allow Douglas PUD to begin identifying entrapment or stranding areas. In 2006, a field survey of potential bull trout stranding sites using bathymetric and operations information was conducted during a period of low reservoir elevation associated with the Methow River flood control program. Following a complete survey of the Project, no stranded bull trout (sub-adult or adult) were found during the 2006 low water event. In 2007, reservoir conditions were not sufficiently low to warrant further field investigations.

In support of identifying the core areas and local populations of bull trout utilizing the Project area, Douglas PUD funded the collection of genetic samples from 22, 20, and 24 bull trout in 2005, 2006 and 2007, respectively. In 2005, 6 samples were collected at Wells Dam and 16

were collected at off-Project operations (Methow and Twisp river screw traps). In 2006, 10 samples were collected at Wells Dam and 10 samples were collected at off-Project operations. In 2007, 10 samples were collected at Wells Dam and 14 samples were collected at off-Project operations. All genetic samples were provided to the USFWS.

3.0 GOALS AND OBJECTIVES

The goal of this report is to present summary information related to BTMP activities conducted in 2014. The goal of the BTMP is to identify, monitor and address impacts, if any, on bull trout resulting from the Project in a manner consistent with the USFWS Bull Trout Recovery Plan and the terms of the Section 7 ITS (See Section 4.7). The Protection, Mitigation and Enhancement measures (PMEs) presented within the BTMP are designed to meet the following objectives:

Objective 1: Operate the upstream fishways and downstream bypass systems in a manner consistent with the HCP;

Objective 2: Identify any adverse Project-related impacts on adult and sub-adult bull trout passage;

Objective 3: Implement reasonable and appropriate options to modify upstream fishway, downstream bypass, or operations if adverse impacts on bull trout are identified and evaluate effectiveness of these measures;

Objective 4: Periodically monitor for bull trout entrapment or stranding during low Wells Reservoir elevations (similar to the WBTMMP);

Objective 5: Participate in the development and implementation of the USFWS Bull Trout Recovery Plan, including information exchange and genetic analysis. Should bull trout be delisted, the Aquatic SWG will re-evaluate the needs and objectives of the BTMP;

Objective 6: Identify any adverse impacts of Project-related hatchery operations on adult and sub-adult bull trout.

In addition to the reporting BTMP activities, this report also addresses additional terms and conditions for bull trout as identified in the USWFS 2012 Biological Opinion for the Operation of the Wells Project and related facilities. As such, listed below are these terms and conditions that are largely consistent with BTMP measures.

To implement Reasonable and Prudent Measures (RPM) 1: FERC shall require Douglas PUD, in coordination with the Service, to provide adequate year-round passage conditions for bull trout at all Project facilities.

1. Upstream and Downstream Passage for Adult and Sub-Adult Bull Trout (BTMP Section 4.1.1): FERC shall require Douglas PUD, in coordination with the Service, to provide upstream passage for bull trout through the existing upstream fishways and downstream passage for bull trout through the existing downstream bypass system consistent with the

HCP and Aquatic Settlement Agreement. Both upstream fishway facilities (located on the west and east shores) shall be operational year round with maintenance occurring on each fish way at different times during the winter to ensure that one upstream fishway is always operational. Operation of the downstream passage facilities for bull trout shall be consistent with bypass operations for Plan Species identified in the Wells HCP.

2. Bull Trout Passage Performance Standard (BTMP Section 4.3): FERC shall require Douglas PUD, in coordination with the Service, to implement the upstream and downstream measures contained in the Wells Hydroelectric Project BTMP to provide safe, timely, and effective upstream and downstream passage for adult and sub-adult bull trout at the Wells Hydroelectric Project. "Safe, timely and effective" passage shall be achieved when Douglas PUD has demonstrated that the survival and passage success rates for adult marked fish are greater than 95% and greater than or equal to 90%, respectively, and when passage studies demonstrate that the fishway facilities at Wells Dam do not impede the passage of bull trout. To ensure that safe, timely and effective passage at Wells Dam is maintained during the term of the new license, Douglas PUD shall implement the bull trout upstream and downstream measures consistent with the BTMP.

3. Upstream Fishway Operations Criteria (BTMP Section 4.1.3): FERC shall require Douglas PUD, in coordination with the Service, to operate the upstream fishway at Wells Dam in accordance with criteria outlined in the Wells HCP.

4. Bypass Operations Criteria (BTMP Section 4.1.4): FERC shall require Douglas PUD, in coordination with the Service, to operate the bypass system at Wells Dam in accordance with criteria outlined in the Wells HCP.

5. Implement Reasonable and Appropriate Measures to Modify the Upstream Fishway and Downstream Bypass if Adverse Impacts on Bull Trout are Identified (BTMP Section 4.3): FERC shall require Douglas PUD, in coordination with the Service, to identify, design, implement, and evaluate reasonable and feasible measures to modify the upstream fishway, downstream bypass, or operations to reduce the identified incidental take of bull trout if monitoring (Term and Condition #10) identifies upstream or downstream passage problems for bull trout, in consultation with the Service, WCC and the Aquatic SWG. Study protocols and radio-telemetry assessment methodologies prescribed above in Term and Condition #10 and #11[1], shall be used to evaluate the effectiveness of any additional measures implemented to reduce the incidental take of bull trout. Upon completion of the evaluation, the Service and the NMFS, in consultation with the Aquatic SWG, and the WCC, will determine whether the proposed measure should be made permanent, removed, or modified.

To implement RPM 2: FERC shall require Douglas PUD, in coordination with the Service, to minimize the effects of hydrographic variation to all life stages of bull trout at all Project facilities.

[1] Refer to the USFWS 2012 reference in the literature cited page for reference.

6. Investigate Entrapment or Stranding of Bull Trout during Periods of Low Reservoir Elevation (BTMP Section 4.4): FERC shall require Douglas PUD, in coordination with the Service, to continue to investigate potential entrapment or stranding areas for bull trout through periodic monitoring when periods of low reservoir elevation expose identified sites. During the first five years of the new license, Douglas will implement up to five bull trout entrapment/stranding assessments during periods of low reservoir elevation (below 773' msl). If no incidences of bull trout stranding are observed during the first five years of study, additional assessment will take place every fifth year during the remainder of the license term, unless waived by the Aquatic SWG. If bull trout entrapment and stranding result in take in exceedance of the authorized incidental take level, then reasonable and appropriate measures will be implemented by Douglas, in consultation with the Aquatic SWG, to address the impact.

To implement RPM 3: FERC shall require Douglas PUD, in coordination with the Service, to minimize the effects of the Hatchery Supplementation Program to all life stages of bull trout.

7. Bull Trout Monitoring During Hatchery Activities (BTMP 4.6.1): FERC shall require Douglas PUD, in coordination with the Service, to monitor hatchery actions (e.g., salmon trapping, sturgeon brood stocking and capture activities) that may encounter adult and sub-adult bull trout resulting from incidental capture and take. Actions to be monitored shall be associated with the Wells Hatchery, the Methow Hatchery, and any future facilities directly funded by Douglas PUD. If the incidental take of bull trout is exceeded due to Douglas PUD's hatchery actions then Douglas PUD will develop a plan, in consultation with the Aquatic SWG, to address the identified factors contributing to the exceedance of the allowable level of incidental take.

To implement RPM 4: FERC shall require Douglas PUD, in coordination with the Service, to minimize the effects of implementing the Aquatic Resource Management Plans (white sturgeon, Pacific lamprey, resident fish, aquatic nuisance species, and water quality) and the Predator Control Program to all life stages of bull trout.

8. Monitoring Other Aquatic Resource Management Plan Activities and Predator Control Program for Incidental Capture and Take of Bull Trout (BTMP Section 4.5.1): FERC shall require Douglas PUD, in coordination with the Service, to monitor activities associated with the implementation of other Aquatic Resource Management Plans for white sturgeon, Pacific lamprey, resident fish, aquatic nuisance species, and water quality and Predator Control Program that may result in the incidental capture and take of bull trout. If the incidental take of bull trout is exceeded due to the implementation of other Aquatic Resource Management Plan activities, then Douglas PUD will develop a plan, in consultation with the Aquatic SWG, to address the identified factors contributing to the exceedance of the allowable level of incidental take. If the incidental take of bull trout is exceeded due to the implementation of the Predator Control Program, then Douglas PUD will develop a plan, in consultation with the HCP Coordinating Committee and the Aquatic SWG, to address the identified factors contributing to the exceedance of the allowable level of incidental take.

To implement RPM 5: FERC shall require Douglas PUD, in coordination with the Service, to design and implement a bull trout monitoring program that will adequately detect and quantify Wells Hydroelectric Project impacts, including those associated with the Wells Dam, Twisp Weir trapping facilities, and hatchery facilities. This information will allow the Service to determine whether authorized take levels are exceeded.

9. Upstream Fishway Counts (BTMP Section 4.1.2): FERC shall require Douglas PUD, in coordination with the Service, to conduct video monitoring in the Wells Dam fishways from May 1st through November 15th to count and provide information on the population size of upstream moving bull trout.

10. Adult Bull Trout Upstream and Downstream Passage Evaluation (BTMP Section 4. 2.1): FERC shall require Douglas PUD, in coordination with the Service, to periodically monitor incidental take of bull trout through Wells Dam and in the Wells Reservoir through the implementation of a radio-telemetry study. Specifically, in years 5 and 10 of the new license, and continuing every ten years thereafter during the new license term, Douglas PUD shall conduct a 1 year monitoring study to verify continued compliance with the bull trout passage performance standard (Term and Condition #2). These monitoring studies shall employ the same study protocols and radio-telemetry assessment methodologies used at Wells Dam in 2006 and 2007. If the monitoring results demonstrate continued compliance with the bull trout passage performance standard (Term and Condition #2), then no additional actions are needed. If the monitoring results demonstrate that Douglas PUD is no longer in compliance with the bull trout passage performance standard (Term and Condition #2), then the monitoring study will be replicated to confirm the results. If the results after two years of monitoring demonstrate that Douglas PUD is no longer in compliance with the bull trout passage performance standard (Term and Condition #2), then Douglas PUD shall, pursuant to Term and Condition #5, develop and implement additional measures to improve bull trout passage until compliance with the bull trout passage performance standard (Term and Condition #2) is achieved. If the bull trout counts at Wells Dam increase more than twice the existing 5-year average or if there is a significant change in the operation of the fish ladders, bypass, or hydrocombine, then Douglas PUD shall, in consultation with the Service, the Aquatic SWG, and the Wells HCP Coordinating Committee , shall conduct a 1 year, follow-up monitoring study to verify continued compliance with the bull trout performance standard (Term and Condition #2). Although the BTMP specifies Douglas PUD to utilize radio-telemetry as the recommended monitoring method, the Service concludes that future monitoring technologies may be utilized in the implementation of this term and condition.

11. Adult Bull Trout Passage Evaluation at Off-Project Collection Facilities (BTMP Section (4.2.2): FERC shall require Douglas PUD, in coordination with the Service, beginning in year one of the new license, to conduct a one-year radio-telemetry evaluation to assess incidental take of adult bull trout at the adult salmon and steelhead broodstock collection facilities associated with the Wells HCP, including but not limited to, the Twisp Weir adult collection facility. Douglas PUD shall capture and tag up to 10 adult, migratory

bull trout (>400 mm) per assessment per year and use fixed receiver stations upstream and downstream of the collection facilities. Assessments shall employ the same study protocols and radio-telemetry assessment methodologies used at Wells Dam in 2006 and 2007. If the evaluation demonstrates that Douglas PUD is not in compliance with the bull trout passage performance standard (Term and Condition #2), then the evaluation will be replicated to confirm the results. If the results after two years of evaluation demonstrate that Douglas PUD is not in compliance with the bull trout passage performance standard (Term and Condition #2), then Douglas PUD shall develop, implement, and evaluate additional measures, in consultation with the Service, Wells HCP Coordinating Committee and the Aquatic SWG, until the Service determines that the bull trout passage performance standard has been achieved. At such time as the Service determines the bull trout passage performance standard has been achieved, the implementation of this measure shall be integrated into the 1 year telemetry monitoring program that is to be conducted every ten years (beginning in year 10 of the new license) at Wells Dam as identified in Term and Condition #10 above. Although the BTMP specifies Douglas PUD to utilize radio-telemetry as the recommended monitoring method, the Service concludes that future monitoring technologies may be utilized in the implementation of this term and condition.

12. Sub-Adult Bull Trout Monitoring (BTMP Section 4.2.3): FERC shall require Douglas PUD, if at any time during the new license term, sub-adult bull trout are observed passing Wells Dam in significant numbers (>10 per calendar year), in consultation with the Service, and the Aquatic SWG, implement reasonable and appropriate methods for monitoring sub-adult bull trout. Although the BTMP states that >10 sub-adults per calendar year as the threshold, new information leads the Service to conclude that 31 sup-adults per calendar year is a more appropriate threshold. Specifically, Douglas PUD may modify counting activities, and shall continue to provide PIT tags and equipment, and facilitate training to enable fish sampling entities to PIT tag sub-adult bull trout when these fish are collected incidentally during certain fish sampling operations. This activity shall occur the following year of first observation of sub-adult bull trout (>10 per calendar year), in consultation with the Service and the Aquatic SWG.

13. Funding Collection of Tissue Samples and Genetic Analysis (BTMP Section 4.5.2): FERC shall require Douglas PUD, in coordination with the Service, to collect up to 10 adult bull trout tissue samples in the Wells Dam fish way facilities over a period of one year and fund their genetic analysis. Genetic tissue collection will take place concurrent with the implementation of the bull trout radio-telemetry monitoring study. Any sub-adult bull trout collected during these activities will also be incorporated into the bull trout genetic analysis. Beginning in year 1 of the new license, Douglas will collect up to 10 adult bull trout tissue samples from the Twisp River broodstock collection facility over a period of one year and will fund their genetic analysis. Genetic tissue collection will take place concurrent with the implementation of the off-Project bull trout radio-telemetry monitoring study. This term and condition is consistent with other section 10(a)(l)(a) permits that involve handling of bull trout. The analysis will provide valuable information on the conservation status and genetic relationships between bull trout populations in the Columbia basin. This information will be used to determine the local

populations impacted by Project operations, and when used in conjunction with other data such as movement data and redd counts, the resiliency of local populations impacted by the proposed action may be determined. Samples will be submitted to the Service (Central Washington Field Office in Wenatchee, Washington).

Reporting Requirements

In order to monitor the impacts of incidental take, Douglas PUD shall prepare an annual report describing the progress of implementation and its impact on the bull trout. The report, which shall be submitted to the Service (Central Washington Field Office) annually on or before April 15th, shall list and describe the work that was completed and the number of bull trout, if any, observed and/or incidentally taken (i.e., injured or killed) during the course of implementation.

Upon locating a dead, injured, or sick endangered or threatened species specimen, initial notification must be immediately made to the nearest Service Law Enforcement Office (Redmond, Washington; telephone 425-883-8122) and reported to the Service's Central Washington Field Office (509-665-3508). Care should be taken in handling sick or injured specimens to ensure effective treatment and care and in handling dead specimens to preserve biological material in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered species and preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by Service Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed. The RPMs, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, the level of incidental take described above is exceeded, such additional take represents new information requiring reinitiating consultation (assuming the Commission retains discretion or control over the action) and review of the RPMs provided. Douglas PUD must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the RPMs.

4.0 PROTECTION, MITIGATION AND ENHANCEMENT MEASURES

Consistent with the BTMP and USFWS Biological Opinion Terms and Conditions, Douglas PUD, in consultation with the Aquatic SWG, has initiated the implementation of the following measures.

4.1 Operate the Upstream Fishways and Downstream Bypass Systems in a Manner Consistent with the HCP (Objective 1)

4.1.1 Provide Upstream and Downstream Passage for Adult and Sub-adult Bull Trout

Douglas PUD will continue to provide upstream passage for adult bull trout through the existing upstream fishways and downstream passage of adult and sub-adult bull trout through the existing downstream bypass system. Both upstream fishway facilities (located on the west and east shores) are operational year around with maintenance occurring on each fishway at different times during the winter to ensure that one upstream fishway is always operational. Maintenance activities on Wells fishways occur during the winter when bull trout have not been observed passing Wells Dam. Operation of the downstream passage facilities for bull trout will be consistent with bypass operations for Plan Species identified in the Wells HCP. Currently, the bypass system is operated from April 12 through August 26 of each year. This operating period is consistent with the period of high bull trout and anadromous fish presence at the Project.

4.1.1.1 Progress Towards Meeting Objective 1 in 2014 - Provide Upstream and Downstream Passage for Adult and Sub-adult Bull Trout

Consistent with the requirements of the FERC license for the Wells Project and the Wells HCP, Douglas PUD maintained safe, efficient and timely passage through the downstream juvenile fish bypass system and upstream adult fishway passage structures for bull trout. Winter maintenance occurred in the adult fishway structures in January 2014 and December 2014. At least one of the adult fishways was in operation at all times during the winter maintenance period (December – February) and both adult fishways were in operation for the remainder of the year (March – November).

Juvenile fish bypass operations were implemented consistent with the 2014 Bypass Operations Plan. Dates of operation included initiation on April 9 at midnight with the bypass system operated continuously through August 19. The 2014 dates of operation for the juvenile fish bypass system are the result of species run-timing estimates developed by the University of Washington and Columbia Basin Research. Operational dates were reviewed, approved and adopted by the Wells HCP Coordinating Committee and implemented by Douglas PUD prior to the beginning of the 2014 bypass season.

4.1.2 Upstream Fishway Counts

Douglas PUD shall continue to conduct video monitoring in the Wells Dam fishways from May 1st through November 15th to count and provide information on the population size of upstream moving bull trout.

4.1.2.1 Progress Towards Meeting Objective 1 in 2014 - Upstream Fishway Counts

Total upstream counts at Wells Dam fish ladder viewing windows was 109 bull trout in 2014. Counts in 2014 exceeded the five-year average from 2009-2013 by 49 fish. Ninety eight percent of the passage occurred during the months of May through July, which is consistent with historic peak passage timing at Wells Dam. This passage is often associated with upstream movement towards natal streams in the Methow River basin where spawning occurs in the fall.

4.1.3 Upstream Fishway Operations Criteria

Douglas PUD shall continue to operate the upstream fishway at Wells Dam in accordance with criteria outlined in the Wells HCP.

4.1.3.1 Progress Towards Meeting Objective 1 in 2014 - Upstream Fishway Operations Criteria

Consistent with the license and the Wells HCP, Douglas PUD continued to operate the two upstream fishways at Wells Dam in accordance with upstream fishway criteria found in the Wells HCP and as approved by the Wells HCP Coordinating Committee.

4.1.4 Bypass Operations Criteria

Douglas PUD shall continue to operate the bypass system at Wells Dam in accordance with criteria outlined in the Wells HCP.

4.1.4.1 Progress Towards Meeting Objective 1 in 2014 - Bypass Operations Criteria

Consistent with the license and the Wells HCP, Douglas PUD continued to operate the juvenile fish bypass system at Wells Dam in accordance with criteria outlined in the Wells HCP and as approved by the HCP Coordinating Committee.

4.2 Identify Any Adverse Project-related Impacts on Adult and Sub-adult Bull Trout Passage (Objective 2)

4.2.1 Adult Bull Trout Upstream and Downstream Passage Evaluation

Douglas PUD shall continue to monitor upstream and downstream passage and incidental take of adult bull trout through Wells Dam and in the Wells Reservoir through the implementation of a radio-telemetry study. Specifically, in years 5 and 10 of the new license, and continuing every ten years thereafter during the new license term, Douglas PUD will conduct a one-year monitoring program to determine whether Douglas PUD remains in compliance with the ITS.

The same study protocols used during past radio-telemetry assessments at Wells Dam (LGL and Douglas PUD 2007) will be employed for these monitoring studies.

If the adult bull trout counts at Wells Dam increases more than two times the existing 5-year average or if there is a significant change in the operation of the fish ladders or hydrocombine, then the Aquatic SWG will determine whether additional years of take monitoring are needed beyond those identified in this section of the BTMP. If the authorized incidental take level is exceeded during any one-year period, Douglas PUD will conduct another monitoring study in the succeeding year. If the authorized incidental take level is exceeded in this second year, Douglas PUD will develop a plan, in consultation with the Aquatic SWG, to address the identified factors contributing to exceedance of the allowable level of incidental take.

4.2.1.1 Progress Towards Meeting Objective 2 in 2014 - Adult Bull Trout Upstream and Downstream Passage Evaluation

Douglas PUD will implement a Passage Evaluation Study in 2017. However, if the five-year average adult bull trout count increases more than two times, Douglas PUD would conduct this study earlier. At the time that the Aquatic Settlement Agreement was signed the five year average count of bull trout at Wells Dam 2005 was 60 fish. In 2014 the five-year average increased to 81 fish per year, representing a 35 percent increase (Figure 4.2-1) and a total of 109 bull trout were counted at Wells Dam fishways.

No significant changes in the operation of the fish ladders or hydrocombine have been implemented or are proposed that would trigger the early implementation of a bull trout passage evaluation.

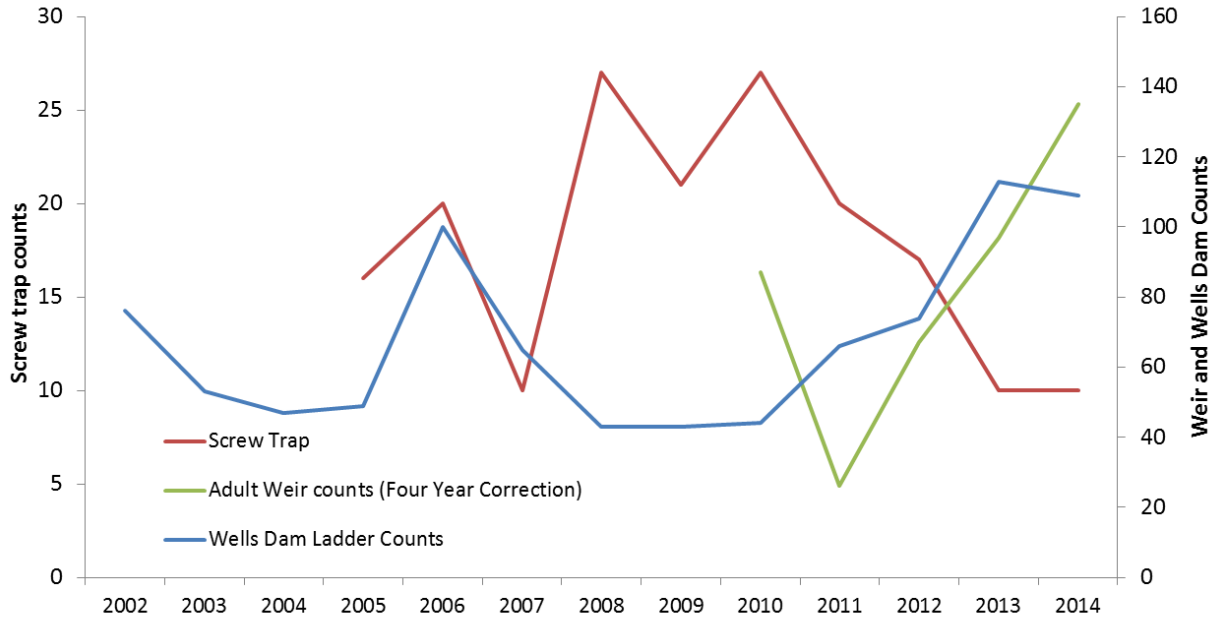

Figure 4.2-1. Douglas PUD 2014 bull trout encounters.

4.2.2 Adult Bull Trout Passage Evaluation at Off-Project Collection Facilities

Douglas PUD shall assess upstream and downstream passage and incidental take of adult, migratory bull trout at off-Project (outside of the Project boundary) adult salmon and steelhead broodstock collection facilities associated with the Wells HCP. Specifically, beginning in year one of the new license, Douglas PUD will conduct a one-year radio-telemetry study to assess passage and incidental take at off-Project adult collection facilities (i.e., Twisp Weir). Douglas PUD will capture and tag up to 10 adult, migratory bull trout (>400 mm) at adult collection facilities and use fixed receiver stations upstream and downstream of collection facilities to examine upstream and downstream passage characteristics and incidental take. Study protocols that have been used during past radio-telemetry assessments at Wells Dam (LGL and Douglas PUD 2008) will be employed for this assessment.

If negative impacts to passage associated with off-Project collection facilities are observed or the authorized incidental take level is exceeded during any one-year period, Douglas PUD will conduct another monitoring study in the succeeding year. If negative impacts to passage continue to be observed or the authorized incidental take level is exceeded in this second year, Douglas PUD will develop a plan, in consultation with the Aquatic SWG, to address the identified factors contributing to passage impacts or the exceedance of the allowable level of incidental take.

After year one of the new license, the implementation of this sub-objective will be integrated into the one-year telemetry monitoring program that is to be conducted every ten years (beginning in year 10 of the new license) at Wells Dam as identified in Section 4.2.1. In year 10 of the new license and every 10 years thereafter, bull trout will be captured and tagged only at Wells Dam (Section 4.2.1) since data show that bull trout passing Wells Dam are migrating back into the Methow River watershed (LGL and Douglas PUD 2008). Through the continued deployment of fixed station monitoring at off-Project adult salmon and steelhead broodstock collection facilities, these tagged bull trout will continue to provide passage and take information in support of this sub-objective throughout the term of the new license.

4.2.2.1 Progress Towards Meeting Objective 2 in 2014 - Adult Bull Trout Passage Evaluation at Off-Project Collection Facilities

During 2012, Douglas PUD, in consultation with the Aquatic SWG developed a study plan to assess incidental take of bull trout at the Twisp River Weir broodstock collection facility. All parties including the USFWS, agreed that Douglas PUD should postpone the Off-Project Passage Evaluation until year five (2017) of the new license when the Bull Trout Passage and Enumeration Study is scheduled to take place at Wells Dam. Combining the studies would provide a more comprehensive study and potentially require less study fish than two independent studies, thereby limiting the overall impact or take of bull trout.

During 2013, Douglas PUD, in consultation with the Aquatic SWG filed a letter with the FERC proposing to postpone the Off-Project Passage Evaluation until year five (2017) of the new license when the Bull Trout Passage and Enumeration Study is scheduled to take place at Wells Dam. FERC approved the deferral on October 15, 2013. Planning of the study will take place in 2016 and will use the postponed and approved Twisp Weir Radio Telemetry Study Plan as a template. Updates to the study plan will include the components of the study that are specific to

Wells Dam. The Study Plan will be developed in collaboration with the Aquatic SWG. Additional planning activities occurring in early 2016 will include collaborating activities with other Mid-Columbia PUD's interested in Bull Trout passage at their Projects, regional agencies coordination with the USFWS field staff and other regional agencies interested in the work. Once the study plan is approved Douglas PUD will consider contractors and elect a contractor to implement the study.

In 2014, there were 215 encounters of adult bull trout at the Twisp River Weir. This total was well above the expected take allowance of 118 as identified in Table 14 of the Bull Trout BO for Wells Dam (USFWS 2012). Eighty of the 215 bull trout were recaptures from previous years of tagging (Figure 4.2-2). PIT tag histories of these fish suggest that these fish survive and leave the Twisp Weir during a period that is consistent with post spawning downstream migration. Given the high number of bull trout encounters, Douglas PUD informed the USFWS and met with them during the fall of 2014. During these meetings the USFWS and Douglas PUD agreed to the development of a 2015 Twisp Weir Operations Plan with the objective of minimizing the number of adult bull trout encountered at the weir in subsequent years. In early May 2015 Douglas PUD will provide the USWFS and the Aquatic SWG with a draft Twisp Weir Operations Plan. The plan will include a description of Twisp Weir operations, operation purpose, and techniques that will be employed in order to minimize the number of bull trout encountered during operations. Methods might include examining current PIT tag data to determine the best times to open the weir to allow safe passage for bull trout and limit the number of fish captured. A stepwise approach will be used to allow for increased Spring Chinook trapping effort when necessary and when bull trout encounters are low.

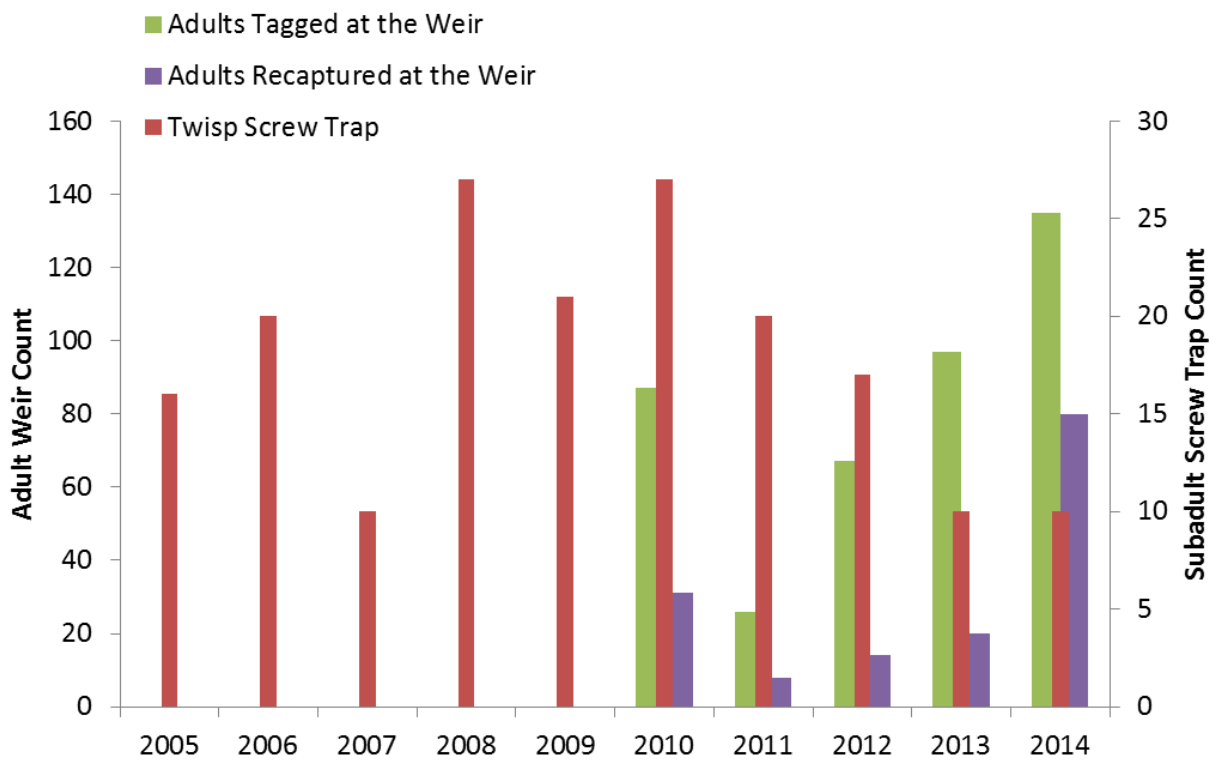

Figure 4.2-2. Annual counts of adult bull trout encountered at the Twisp River Weir and sub-adult counts at the Twisp River Screw Trap.

4.2.3 Sub-adult Bull Trout Monitoring

While an objective of the BTMP is to identify potential Project impacts on upstream and downstream passage of sub-adult bull trout, Aquatic SWG members (including the USFWS) agree that it is not feasible to assess sub-adult passage because sub-adult bull trout have not been observed at Wells Dam. During the previous six years of bull trout data collection at Wells Dam (BioAnalyst Inc. 2004; LGL and Douglas PUD 2008), sub-adult bull trout have not been documented passing Wells Dam (based upon fishway video counts and bull trout trapping for radio-telemetry). However, it is expected that through the increased monitoring associated with the implementation of the BTMP that there may be additional encounters with sub-adult bull trout. If at any time during the new license term sub-adult bull trout are observed passing Wells Dam in significant numbers (i.e., >10 per calendar year), the Aquatic SWG will recommend reasonable and appropriate methods for monitoring sub-adult bull trout. Specifically, Douglas PUD may modify counting activities, continue to provide PIT tags and equipment, and facilitate training to enable fish sampling entities to PIT tag sub-adult bull trout when these fish are collected incidentally during certain fish sampling operations. This activity would occur the following year after significant numbers of sub-adult bull trout (>10 per calendar year) were observed.

4.2.3.1 Progress Towards Meeting Objective 2 in 2014 - Sub-adult Bull Trout Monitoring

No sub-adult bull trout were observed at Wells Dam in 2014.

4.3 Implement Reasonable and Appropriate Measures to Modify the Upstream Fishway and Downstream Bypass if Adverse Impacts on Bull Trout are Identified (Objective 3)

Douglas PUD shall continue to operate the upstream fishway and downstream bypass at Wells Dam in accordance with the Wells HCP. However, if upstream or downstream passage problems for bull trout are identified (as agreed to by the USFWS and Douglas PUD), Douglas PUD will identify and implement, in consultation with the Aquatic SWG and Wells HCP Coordinating Committee, reasonable and appropriate options to modify the upstream fishway, downstream bypass, or operations to reduce the identified impacts to bull trout passage.

4.3.1 Progress Towards Meeting Objective 3 in 2014 - Implement Reasonable and Appropriate Measures to Modify the Upstream Fishway and Downstream Bypass if Adverse Impacts on Bull trout are Identified

No new adverse impacts to bull trout were identified in 2014. As a result, Douglas PUD is not proposing to implement any new upstream fishway or downstream bypass measures.

4.4 Investigate Entrapment or Stranding of Bull Trout during Periods of Low Reservoir Elevation (Objective 4)

During the implementation of the WBTMMP from 2004-2008, Douglas PUD, through the use of high resolution bathymetric information, hydraulic and elevation data, and backwater curves, identified potential bull trout entrapment and stranding areas in the Wells Reservoir. Although no stranded bull trout were observed in these areas during the implementation of the WBTMMP, Douglas PUD will continue to investigate potential entrapment or stranding areas for bull trout through periodic monitoring when periods of low reservoir elevation expose identified sites. During the first five years of the new license, Douglas PUD will implement up to five bull trout entrapment/stranding assessments during periods of low reservoir elevation (below 773' msl). If no incidences of bull trout stranding are observed during the first five years of study, additional assessment will take place every fifth year during the remainder of the license term, unless waived by the Aquatic SWG. If bull trout entrapment and stranding result in take in exceedance of the authorized incidental take level, then reasonable and appropriate measures will be implemented by Douglas PUD, in consultation with the Aquatic SWG, to address the impact.

4.4.1 Progress Towards Meeting Objective 4 in 2014 -Investigate Entrapment or Stranding of Bull Trout during Periods of Low Reservoir Elevation

Pursuant to Article 402 of the Wells Project license, Douglas PUD developed a Bull Trout Stranding, Entrapment, And Take Study Plan (Plan). This document was developed collaboratively with the USFWS and the Aquatic SWG. The Plan was filed with the FERC on September 24, 2013 and approved on October 29, 2013.

The Plan requires Douglas PUD to conduct 5 reservoir surveys when Wells Dam (Project) operations reduce the forebay elevation to 773 feet above sea level (msl) within the first five years of the new operating license for the Project. These surveys are to be conducted opportunistically when reservoir elevations may be at or below 773' msl for an extended period of time. This sampling regime is also consistent with the USFWS 2013 Section 10 Biological Opinion, Section 18 Fishway Prescriptions for the Wells Project license, and Douglas PUD's BTMP.

On Sunday February 23, 2014 at 10:00 PM the Project forebay reached 773' msl. This low elevation was a result of the following factors:

1. The federal hydro-system above the Wells Project delivered less water than scheduled for both Saturday and Sunday. On Saturday, February 22, 2014 Chief Joseph Dam discharged a daily average flow of 49.5 kcfs and on Sunday February 23, 2014 it discharged an average of 42.5 kcfs.

2. During low flow events, Douglas PUD provided water to Chelan PUD and Grant PUD in order to accommodate fall Chinook protection flows of at least 65 kcfs in the Hanford Reach.

3. The Wells Project is a run-of-the river project with little to no active storage and therefore incoming flow approximates outgoing flow on any given day. When incoming flows are less than outgoing flows the reservoir elevation decreases.

On February 24, 2014, Douglas PUD biologists conducted a Wells Project stranding, entrapment and take survey consistent with regulatory requirements. The Methow River mouth, Okanogan River mouth, Kirk Islands, El Rio Road bed (across from Okanogan River mouth), Schluneger Flats, and Bridgeport Bar Islands were surveyed and no bull trout were observed. The stranding survey conducted in 2014 was the first and only bull trout stranding survey completed since the issuance of the Wells Operating License in 2012 and since the completion of the Bull Trout Stranding Entrapment and Take Study Plan was approved by the FERC.

4.5 Participate in the Development and Implementation of the USFWS Bull Trout Recovery Plan (Objective 5)

4.5.1 Monitoring Other Aquatic Resource Management Plan Activities and Predator Control Program for Incidental Capture and Take of Bull Trout

Douglas PUD will monitor activities associated with the implementation of other Aquatic Resource Management Plans (white sturgeon, Pacific lamprey, resident fish, aquatic nuisance species, and water quality) and the Predator Control Program that may result in the incidental capture and take of bull trout. If the incidental take of bull trout is exceeded due to the implementation of other Aquatic Resource Management Plan activities, then Douglas PUD will develop a plan, in consultation with the Aquatic SWG, to address the identified factors contributing to the exceedance of the allowable level of incidental take. If the incidental take of bull trout is exceeded due to the implementation of the Predator Control Program, then Douglas

PUD will develop a plan, in consultation with the Wells HCP Coordinating Committee and the Aquatic SWG, to address the identified factors contributing to the exceedance of the allowable level of incidental take.

4.5.1.1 Progress Towards Meeting Objective 5 in 2014 - Monitoring Other Aquatic Resource Management Plan Activities and Predator Control Program for Incidental Capture and Take of Bull Trout

Three activities conducted under other Aquatic Resource Management Plan actions had the potential to encounter bull trout in 2014:

1. The Chinook Salmon Subyearling Life History Study
    - The subyearling life history study is an HCP study focused on the life history and behavior of juvenile Chinook salmon in the Upper Columbia River and principally within the Wells Project. Juvenile subyearling Chinook were collected with beach seines in June and July of 2014 within the Wells Project. Although many non-target taxa were collected, no bull trout were encountered.
2. Pikeminnow removal associated with the Predator Control Program
    - The Wells HCP required Predator Control Program, principally Douglas PUD's pikeminnow control program, did not encounter any bull trout in 2014. The pikeminnow control program used setlines to capture pikeminnow in deep water areas of the Wells Project and over the program's existence (more than fifteen years) no bull trout have been encountered.
3. The 2014 Wells Project Resident Fish Study
    - Over the spring and summer of 2014 Douglas PUD and its contractors conducted a Wells Project Resident Fish Study consistent with license requirements found within the Resident Fish Management Plan. To accomplish this task boat electro-shocking, long- or setlines, and snorkel surveys were used to estimate the abundance and diversity of fish species within the Project area. No bull trout were encountered during these sampling efforts.

4.5.2 Funding Collection of Tissue Samples and Genetic Analysis

Beginning in year 10 of the new license, and continuing every 10 years thereafter for the term of the new license, Douglas PUD will, if recommended by the Aquatic SWG, collect up to 10 adult bull trout tissue samples in the Wells Dam fishway facilities over a period of one year and fund their genetic analysis. Genetic tissue collection will take place concurrent with the implementation of the bull trout radio-telemetry monitoring study. Samples will be submitted to the USFWS Central Washington Field Office in Wenatchee, Washington. Any sub-adult bull trout collected during these activities will also be incorporated into the bull trout genetic analysis.

Beginning in year one of the new license, Douglas PUD will collect up to 10 adult bull trout tissue samples from the Twisp River broodstock collection facility over a period of one year and

will fund their genetic analysis. Genetic tissue collection will take place concurrent with the implementation of the off-Project bull trout radio-telemetry monitoring study.

4.5.2.1 Progress Towards Meeting Objective 5 in 2014 - Funding Collection of Tissue Samples and Genetic Analysis

Genetic samples were collected for all of the bull trout captured at the Twisp Weir in 2014. Samples will be analyzed if requested by the Aquatic SWG. Genetic samples will be collected at Wells Dam in year ten of the new license, and as required, associated with the radio-telemetry passage study.

Although not of genetic origin, PIT tag data summarized in 2014 for 29 bull trout tagged at Wells Dam from 2010-2014 suggests that fish can be assigned to spawning tributaries 50-75% of the time[2] (excluding 2010). Since 41% of the fish were not assigned to a given tributary and PIT array detections in tributaries are below 100% efficient, tributary assignments should be considered highly conservative. For example, 2010-2014 results suggest that at least 50% of the bull trout observed at Wells Dam are bound for spawning in the Methow River (Table 4.5-1), whereas radio-telemetry work conducted between 2005-2008 suggest that over 80% of bull trout observed at Wells Dam are Methow Basin spawners (LGL and Douglas PUD, 2008). Sample sizes in each year are extremely low and therefore should be interpreted with caution. Additional bull trout PIT tagging and/or genetic collection at Wells Dam could improve spawning assignments.

[2] Assumes adult fish are returning to natal and spawning tributaries.

Table 4.5-1. Spawning assignment for 29 bull trout tagged at Wells Dam from 2010-2014 using PIT tag detection histories.

Year	Number tagged at Wells Dam	Spawning Assignment						Percent assigned each year
			Entiat	Methow				
		Unknown	Entiat/ Mad	Twisp	Gold Creek	Early Winters	Chewuch	
2010	5	4*		1				20%
2011	4	1		2	1			75%
2012	3	1		2				67%
2013	13	4	1	4	2	1	1	69%
2014	4	2	1	1				50%
Total	29	12	2	10	3	1	1	59%
Percent assigned to basin		41%	7%	34%	10%	3%	3%	
* 1 of 4 recorded in the mainstem Methow but not in a spawning tributary.								

4.5.3 Information Exchange and Regional Monitoring Efforts

Douglas PUD will continue to participate in information exchanges with other entities conducting bull trout research and regional efforts to explore availability of new monitoring methods and coordination of radio-tag frequencies for bull trout monitoring studies in the Project.

Douglas PUD will make available an informational and educational display at the Wells Dam Overlook to promote the conservation and recovery of bull trout in the Upper Columbia River and associated tributary streams.

4.5.3.1 Progress Towards Meeting Objective 5 in 2014 - Information Exchange and Regional Monitoring Efforts

Following the issuance of a new Draft Recovery Plan in 2014, Douglas PUD participated in a regional meeting held by the USFWS in Wenatchee, WA on November 24, 2014. This meeting focused on recovery planning for the Mid-Columbia Recovery Unit. In 2015, Douglas PUD will participate in the development of the Recovery Unit Implementation Plan to support the development of a final Bull Trout Recovery Plan.

4.6 Identify Any Adverse Impacts of Project-related Hatchery Operations on Adult and Sub-adult Bull Trout (Objective 6)

4.6.1 Bull Trout Monitoring During Hatchery Activities

During the term of the new license, Douglas PUD shall monitor hatchery actions (e.g., salmon trapping, sturgeon brood stocking and capture activities) that may encounter adult and sub-adult

bull trout for incidental capture and take. Actions to be monitored shall be associated with the Wells Hatchery, the Methow Hatchery, and any future facilities directly funded by Douglas PUD.

If the incidental take of bull trout is exceeded due to Douglas PUD's hatchery actions then Douglas PUD will develop a plan, in consultation with the Aquatic SWG, to address the identified factors contributing to the exceedance of the allowable level of incidental take.

4.6.1.1 Progress Towards Meeting Objective 6 in 2014 - Bull Trout Monitoring During Hatchery Activities

Hatchery actions in 2014 were similar to other years where broodstock was collected at Wells Dam and the Twisp Weir traps. In addition, the Twisp Weir was used to control the ratio of natural origin and hatchery steelhead and spring Chinook spawning in the upper reaches of the Twisp River. Screw traps used during HCP related smolt monitoring and evaluation activities in the Methow River basin often encounter juvenile bull trout. All of these trapping activities are conducted by WDFW, Douglas PUD's lead hatchery contractor.

As discussed in Section 4.2.2 above, in 2014, encounters of adult bull trout at the Twisp River Weir were 215 (untagged bull trout, fish tagged during previous years, and two fish that were captured twice in 2014), and well above the take allowance of 118 adults as found in Table 14 of the Bull Trout BO for Wells Dam and the operation of the Twisp Weir. Seventy eight of the 215 bull trout encountered in 2014 at the Twisp Weir were recaptures from previous years of tagging (Figure 4.2-1). No sub-adults (<450 mm) have been encountered at the Twisp Weir over the last five years, although the BO has a take limit of 50.

From 2010 to 2014, an average of 82 bull trout (excluding recaptures) have been encountered at the Twisp Weir on an annual basis (30% lower than the take limit stated in the BO). Including recaptures, a total of 565 bull trout have been encountered over the same five-year period at the Twisp Weir or 111 per year (annual average), which is still seven fish below the take limit identified in the BO. PIT tag histories of these fish indicate that these fish survive activities at the Twisp Weir and leave the Twisp River during a period that is consistent with post spawning downstream migration.

Bull trout arrivals at the Twisp Weir suggest that over the last five years, 97% of the captures at the Twisp Weir occurred between June 9 and July 23. This period directly overlaps with spring Chinook weir operations. In addition, PIT tag interrogations at a monitoring station in the lower Twisp River suggest that bull trout and spring Chinook move during similar periods of the day, preventing WDFW and Douglas PUD from operating the Twisp Weir during selective periods of the day (night or daytime hours) in order to avoid bull trout.

In addition to Twisp Weir encounters, during September 2014, Douglas PUD and WDFW piloted a Steelhead Mark Recapture Study in the Twisp River in order to estimate the carrying capacity of steelhead in the basin. To accomplish this task, 100 meter stream sections were randomly selected as mark and recapture locations. A team of 5-6 biologists sampled the Twisp River using backpack electrofishing and encountered 179 bull trout, of which 138 were PIT tagged. The BO has a take limit of 31 sub-adult and 76 adult bull trout during Hatchery Genetic

Management Plan (HGMP) actions, which include electrofishing. Once the total number of bull trout encounters were tallied midway through the study, Douglas PUD contacted the USFWS and modified the study to only be conducted in the first 60 km of the Twisp River Basin where fewer bull trout were encountered. Given the high number of bull trout encounters at the Twisp Weir and during the Steelhead Mark Recapture Study, Douglas PUD informed the USFWS of the take exceedance and met with them during the fall of 2014 to address bull trout encounter concerns. During these meetings, the USFWS and Douglas PUD agreed that Douglas PUD would develop a 2015 Twisp Weir Operations Plan toward minimizing the number of adult bull trout encountered at the Twisp Weir in subsequent years and coordinate additional electrofishing studies with the USFWS.

Finally, Douglas PUD and its contractor (WDFW) have captured fewer than 30 sub-adults in screw traps each year as part of HGMP and hatchery operations. In 2014, only 10 sub-adult bull trout were captured in the Twisp River screw trap.

4.7 USFWS Section 7 Consultation

The PMEs contained within the BTMP were specifically developed, in consultation with the USFWS, to address potential RPMs for the Project relicensing and associated Section 7 consultation. All of the USFWS's potential RPMs for the Wells Project can be found in Section 3.0 above. Each of these RPMs has been cross referenced with the specific supporting objective and PME (Sections 4.1 - 4.6) found within the BTMP. The purpose of these RPMs are to provide consistency with Douglas PUD's Aquatic Settlement Agreement and the USFWS' subsequent Section 7 consultation on the relicensing of the Wells Project.

4.7.1.1 Progress Towards Meeting Objective 5 in 2014 - USFWS Section 7 Consultation

On March 16, 2012, the USFWS issued a Bull Trout BO related for the relicensing of the Wells Project. The BO contained various RPMs and the terms and conditions (T&Cs). These RPMs and T&Cs can be found within Appendix E of the FERC license for the Wells Project and they are entirely consistent with the measures identified in the BTMP and within this report.

Aside from consultation with the USFWS regarding concerns of incidental take exceedances for some BTMP activities, no formal Section 7 consultation was required in 2014.

4.8 Reporting

Douglas PUD will provide a draft annual report to the Aquatic SWG summarizing the previous year's activities undertaken in accordance with the BTMP. The report will document all bull trout activities conducted for the Wells Project and describe activities proposed for the following year. Furthermore, any decisions, statements of agreement, evaluations, or changes made pursuant to this BTMP will be included in the annual report. If significant activity was not conducted in a given year, Douglas PUD will prepare a memorandum providing an explanation of the circumstances in lieu of the annual report.

4.8.1.1 Progress Towards Meeting Annual Reporting Requirements

This 2014 report fulfills the reporting requirements identified in the BTMP and Article 406 of the Wells Project FERC operating license. In addition, this report fulfills requirements of the Bull Trout BO to submit an annual take report to the Central Washington Field Office of the USFWS on or before April 15 each year.

Because the measures required by the BO are entirely consistent with the measures found in the Aquatic Settlement Agreement's BTMP and because the reporting requirements for the BTMP, bull trout BO and Article 406 are consistent, the 2014 BTMP Annual Report will be used to satisfy all three of the bull trout annual reporting requirements.

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APPENDIX B

PRE-FILING CONSULTATION RECORD SUPPORTING THE APPROVAL OF THE 2014 BULL TROUT MANAGEMENT PLAN AND INCIDENTAL TAKE ANNUAL REPORT

EMAIL TO AQUATIC SETTLEMENT WORK GROUP REQUESTING REVIEW OF THE 2014 BULL TROUT MANAGEMENT PLAN AND INCIDENTAL TAKE ANNUAL REPORT

From: Kristi Geris <kgeris@anchorqea.com>
Sent: Monday, March 16, 2015 9:58 AM
To: Andrew Gingerich; Bao Le; Bill Towey (bill.towey@colvilletribes.com); Bob Rose; 'Brad James'; 'Bret Nine'; 'Chad Jackson'; Charlie McKinney (cmck461@ecy.wa.gov); Chas Kyger; Chris Coffin (ccof461@ecy.wa.gov); Chris Sheridan; Donella Miller (mild@yakamafish-nsn.gov); Jason McLellan; Jeff Korth; 'Jessi Gonzales'; John Ferguson; Keith Kirkendall (Keith.Kirkendall@noaa.gov); Kirk Truscott; Kristi Geris; Mary Mayo; Mike Schiewe; Pat Irle (pirl461@ecy.wa.gov); Patrick Verhey (Patrick.Verhey@dfw.wa.gov); Paul Ward (ward@yakama.com); Shane Bickford; 'Steve Lewis'; 'Steve Parker (parker@yakama.com)'
Subject: FW: DCPUD 2014 BTMP and ITS Annual Report
Attachments: 2015_03_16 Douglas - Draft DCPUD 2014 BTMP and ITS Annual Report.doc

Hi Aquatic SWG: please see the email below from Andrew and the attached draft 2014 Bull Trout Management Plan and Incidental Take Annual Report. As noted below, edits and comments on the draft report are due to Douglas PUD prior to the next Aquatic SWG meeting on April 8, 2015.

The attached draft report is also available for download from the Aquatic SWG Extranet site under: Documents > All by Mtg Date > 4/8/2015 (instructions below). Thanks! –kristi ☺

Instructions:

To gain access to the Aquatic SWG Extranet Homepage, please use the following procedure:

* Visit: https://extranet.dcpud.net/sites/nr/aswg/
* Login using "Forms Authentication" (for non-Douglas PUD employees)

You should now be at the Aquatic SWG homepage.

If you encounter problems, or need a login username and password to access the site:
Please feel free to contact me, Andrew Gingerich, or Julene McGregor [jmcgregor@dcpud.org; (509) 881-2236] and we will gladly assist you with questions or issues.

Kristi Geris

ANCHOR QEA, LLC
kgeris@anchorqea.com
T 509.491.3151 x104
C 360.220.3988

From: Andrew Gingerich [mailto:andrewg@dcpud.org]
Sent: Monday, March 16, 2015 9:28 AM
To: Kristi Geris
Subject: DCPUD 2014 BTMP and ITS Annual Report

Kristi, please find attached Douglas PUD's draft 2014 Bull Trout Management Plan and Incidental Take Annual Report.

Douglas PUD is seeking comments from Aquatic SWG members before the April 8th Aquatic SWG conference call. Douglas PUD would like to submit this report the USFWS by April 15th, which would include comments from the Aquatic SWG membership.

Thanks. Andrew

EMAIL FROM THE COLVILLE CONFEDERATED TRIBES APPROVING THE 2014 BULL TROUT MANAGEMENT PLAN AND INCIDENTAL TAKE ANNUAL REPORT

From: Jason McLellan <Jason.McLellan@colvilletribes.com>
Sent: Tuesday, April 07, 2015 11:29 AM
To: Kristi Geris; Andrew Gingerich
Cc: Mike Schiewe (mschiewe@anchorqea.com)
Subject: RE: Aquatic SWG Agenda item V. Water Forecast 2015

Hi Andrew,

I will not be able to make the call tomorrow. However, we have reviewed both the temperature and bull trout reports and do not have any suggested edits. We vote to approve both of them barring any major revisions.

Mike - Best of luck to you. It has been a pleasure working with you. I have appreciated how you handled some of the difficult issues that we faced in the ASWG.

Cheers,
Jason

From: Kristi Geris [mailto:kgeris@anchorqea.com]
Sent: Tuesday, April 07, 2015 9:30 AM
To: Andrew Gingerich (andrewg@dcpud.org); Bob Rose; Jason McLellan; John Ferguson; Kristi Geris; Mike Schiewe; Pat Irle (pirl461@ecy.wa.gov); Patrick Verhey (Patrick.Verhey@dfw.wa.gov); 'Steve Lewis'
Cc: Chas Kyger; Chris Coffin (ccof461@ecy.wa.gov)
Subject: FW: Aquatic SWG Agenda item V. Water Forecast 2015

Hi Aquatic SWG: please see the email below from Andrew regarding a discussion item for tomorrow's ASWG 4/8 conference call. Thanks! –kristi ☺

Kristi Geris

ANCHOR QEA, LLC
kgeris@anchorqea.com
T 509.491.3151 x104
C 360.220.3988

From: Andrew Gingerich [mailto:andrewg@dcpud.org]
Sent: Tuesday, April 07, 2015 8:25 AM
To: Kristi Geris
Subject: Aquatic SWG Agenda item V. Water Forecast 2015

Kristi, please distribute the below to Aquatic SWG technical leads. This will serve as a discussion kickoff for Agenda item V on Wednesday.
Thanks
Andrew

- Wet spring with most precipitation falling as rain: Well above average flows from Oct-April 5th (rainfall and above average temperatures combined with Grand Coulee drum gate maintenance).
- Wells freshet flows looking close to average or slightly below.

- Upper Columbia is 91% of average because of BC snowpack. <30% of the Columbia River drainage is in Canada but approximately 60% of river flows come from Canadian portion of drainage (high elevation snowpack).
- West of the Cascades, Oregon and lower Snake below average snowpack.

Figure 1. NWRFC Columbia River snow pack to date as % of historical average.

AQUATIC SETTLEMENT WORK GROUP APPROVAL OF THE 2014 BULL TROUT MANAGEMENT PLAN AND INCIDENTAL TAKE ANNUAL REPORT

Final Conference Call Action Items

Aquatic Settlement Work Group

To: Aquatic SWG Parties **Date**: April 8, 2015

From: Michael Schiewe, Chair (Anchor QEA, LLC)

Re: Final Action Items of the April 8, 2015 Aquatic SWG Conference Call

Below is a summary of Action Items from the Aquatic SWG meeting that was held by conference call on Wednesday, April 8, 2015, from 10:00 a.m. to 11:30 a.m. These action items include the following:

I. Summary of Action Items

1. The Colville Confederated Tribes (CCT), Douglas PUD, and John Ferguson (new Aquatic SWG Chair, effective May 2015) will discuss developing guidelines for hatchery rearing juvenile sturgeon; the path forward will be considered during an Aquatic SWG meeting in summer 2015 (Item VI-1).
2. Douglas PUD will update the Aquatic SWG when more is known regarding the feasibility of tagging white sturgeon on a work boat equipped with a sling opposed to on the shore, during white sturgeon monitoring and evaluation efforts in 2015 (Item VI-1).
3. The U.S. Fish and Wildlife Service (USFWS) will provide comments on the draft 2014 Bull Trout Management Plan and Incidental Take Annual Report to Douglas PUD after today's conference call; once USFWS comments are resolved, Douglas PUD will provide the approved revised final draft report to Kristi Geris for distribution to the Aquatic SWG (Item VI-2).
4. Douglas PUD will provide the final 2014 Water Temperature Annual Report, including the revisions made per the Washington State Department of Ecology's (Ecology's) comments, to Kristi Geris for distribution to the Aquatic SWG (Item VI-3). *(Note: Andrew Gingerich provided the final report, along with the email exchange between Ecology and Douglas PUD, to Geris after the Aquatic SWG meeting on April 8, 2015, which Geris distributed to the Aquatic SWG that same day.)*
5. Douglas PUD will provide the four remaining draft 2014 Aquatic Settlement Agreement (ASA) Management Plan Annual Reports (i.e., Water Quality, Pacific Lamprey, Resident

Fish, and White Sturgeon) for review to Kristi Geris by the end of today for distribution to the Aquatic SWG (Item VI-4). *(Note: Andrew Gingerich provided the draft reports for review after the Aquatic SWG meeting on April 8, 2015, as discussed, which Geris distributed to the Aquatic SWG that same day.)*

6. Douglas PUD will continue discussing the feasibility of combining all ASA Annual Reports and deadlines into one submittal (Item VI-4).
7. Douglas PUD will provide the draft 2015 Juvenile Lamprey Habitat Study Plan for review to Kristi Geris by Friday, April 17, 2015, for distribution to the Aquatic SWG (Item VI-8).
8. Douglas PUD will provide photographs of the Wells Dam fishways and lamprey box, when available, to Kristi Geris for distribution to the Aquatic SWG (Item VI-9). *(Note: Chas Kyger provided photographs of the Wells Dam fishways after the Aquatic SWG meeting on April 8, 2015, which Geris distributed to the Aquatic SWG that same day.)*

II. Summary of Decisions

1. The Aquatic SWG members present approved the 2014 Bull Trout Management Plan and Incidental Take Annual Report, contingent upon modifications and agreement reached by Douglas PUD and USFWS (Item VI-2). *(Note: Jason McLellan provided the CCT's approval of the draft report via email on April 7, 2015.)*
2. The Aquatic SWG members present approved the 2014 Wells Project Water Temperature Annual Report, as revised (Item VI-3). *(Note: Jason McLellan provided the CCT's approval of the draft report via email on April 7, 2015.)*

III. Agreements

1. There were no agreements discussed during today's conference call.

IV. Review Items

1. Kristi Geris sent an email to the Aquatic SWG on April 8, 2015, notifying them that the four remaining draft 2014 ASA Management Plan Annual Reports (i.e., Water Quality, Pacific Lamprey, Resident Fish, and White Sturgeon) are available for a 30-day review period, with edits and comments due to Andrew Gingerich by Friday, May 8, 2015. Douglas PUD will request approval of these draft reports during the Aquatic SWG meeting on May 13, 2015 (Item VI-4).

V. Documents Finalized

1. The final 2014 Water Temperature Annual Report was distributed to the Aquatic SWG by Kristi Geris on April 8, 2015 (Item VI-3).

Attachment A
List of Attendees

Name	Role	Organization
Mike Schiewe	Aquatic SWG Chair	Anchor QEA, LLC
John Ferguson	Aquatic SWG Chair (May 2015)	Anchor QEA, LLC
Kristi Geris	Administration/Technical Support	Anchor QEA, LLC
Andrew Gingerich	Aquatic SWG Technical Representative	Douglas PUD
Chas Kyger	Technical Support	Douglas PUD
Bob Rose	Aquatic SWG Technical Representative	Yakama Nation
Chris Coffin	Observer	Washington State Department of Ecology
Charlie McKinney	Aquatic SWG Policy Representative	Washington State Department of Ecology
Steve Lewis	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife

EMAIL FROM THE U.S. FISH AND WILDLIFE SERVICE WITH SUGGESTED EDITS AND FINAL APPROVAL OF THE 2014 BULL TROUT MANAGEMENT PLAN AND INCIDENTAL TAKE ANNUAL REPORT

From: Lewis, Stephen <stephen_lewis@fws.gov>
Sent: Thursday, April 09, 2015 11:14 AM
To: Andrew Gingerich
Subject: Re: Wells 2014 Bull Trout Management Plan Annual Report (USFWS Comments)

Follow Up Flag: Follow Up
Due By: Thursday, April 09, 2015 1:37 PM
Flag Status: Completed

Thanks Andrew, those modifications look appropriate. The USFWS approves the document as modified by your changes.

S-

On Thu, Apr 9, 2015 at 8:08 AM, Andrew Gingerich <andrewg@dcpud.org> wrote:

Thanks Steve. Good comments. Below I have copied your comments from the document and provided our response in italicized font. I also attached a new version of your edited document and your edited version of the document. I tracked the changes for the most part, unless the change was very subtle, in which case the change isn't tracked. Please let me know if the modifications are appropriate and meet your suggestions. If so I will clean up the document and submit the final version to the USFWS, the Aquatic SWG and the FERC per requirements. Finally if the edits meet your suggestions please respond to this email indicating your approval.

Thanks again.

Andrew

509-881-2323

1. Which office are you attempting identify here? Our Regional Office or the Central Washington Field Office?

a. Good catch. The comment refers to the following requirement in the Biological Opinion, "In order to monitor the impacts of incidental take, Douglas PUD shall prepare an annual report describing the progress of implementing the proposed relicensing and its impact on the bull trout. The report, which shall be submitted to the Service (Central Washington Field Office) annually on or before April 15th, shall list and describe the work that was completed and the number of bull trout, if any, observed and/or incidentally taken (i.e., injured or killed) during the course of implementing the Project." We have calcified the sentence to include state "Central Washington Field Office."

2. This verbage serves no purpose, can we please finally omit it??

    a. *The language in question "if any" specific to identifying Project impacts is verbatim from the BTMP. However, I don't think we have heartburn over removing it. We have thus removed it.*

3. This statement appears to be contradictory to the events of 2014??

    a. *The statement in question is "In 2014, the number of bull trout encountered during hatchery operation activities was comparable to previous years." I agree. I removed it. The sentence now reads, "In 2014, incidental captures of adult bull trout exceeded the USFWS BO take value of 118, with 215 bull trout observed at the Twisp Weir."*

4. Much of this can be deleted due to the repetitive nature of this material.

    a. *This section, 2.1, is verbatim from the management plan. Although there is valuable historic information I'm happy to remove it in order to reduce the introduction length. It's been removed per request. The background section now begins with 2005-2008 radio telemetry studies.*

5. I'm not sure how 2014 is spelled out further down in the document??

    a. *The comment refers to Passage Performance Standards in the Terms and Conditions section of the Biological Opinion. No specific BTMP section was referenced in this term and condition when the Biological Opinion was issued, but we believe that it was intended to reference section 4.3 in the BTMP. As such, I added this reference. Good catch. Section 4.3 is the following, "Douglas PUD shall continue to operate the upstream fishway and downstream bypass at Wells Dam in accordance with the Wells HCP. However, if upstream or downstream passage problems for bull trout are identified (as agreed to by the USFWS and Douglas PUD), Douglas PUD will identify and implement, in consultation with the Aquatic SWG and Wells HCP Coordinating Committee, reasonable and appropriate options to modify the upstream fishway, downstream bypass, or operations to reduce the identified impacts to bull trout passage."*

6. I might have missed this, but I would recommend briefly explaining when the preparation for this study will begin.

    a. *To address the comment I suggest adding the following (or something similar) to the end of the paragraph, "Planning of the study will take place in 2016 and will use the postponed and approved Twisp Weir Radio Telemetry Study Plan as a template. Updates to the study plan will include the components of the study that are specific to Wells Dam. The Study Plan will be developed in collaboration with the Aquatic SWG. Additional planning activities occurring in early 2016 will include collaborating activities with other Mid-Columbia PUD's interested in Bull Trout passage at their Projects, regional agencies coordination with the USFWS field staff*

and other regional agencies interested in the work. Once the study plan is approved Douglas PUD will consider contractors and elect a contractor to implement the study."

7. Need further information on the development and implementation of this plan. Also, no further need for increasing the take levels?

   a. I suggest adding the following (or something similar) to the section, *"In early May 2015 Douglas PUD will provide the USWFS and the Aquatic SWG with a draft Twisp Weir Operations Plan. The plan will include a description of Twisp Weir operations, operation purpose, and techniques that will be employed in order to minimize the number of bull trout encountered during operations. Methods might include examining current PIT tag data to determine the best times to open the weir to allow safe passage for bull trout and limit the number of fish captured. A stepwise approach will be used to allow for increased Spring Chinook trapping effort when necessary and when bull trout encounters are low."*

8. What about modifications as they pertain to Pacific lamprey upstream passage?

   a. It is true that we did mods for PL, mostly in 2013 and minor gap filling in 2014 around the count windows. But, this is covered in the PLMP. If agreeable, I'll leave PL out of this section. Modification will be addressed in the PLMP annual report. Sound good?

9. This might be out of place??

   a. Yes. Thank you. Great catch. I changed the title to be consistent with the BTMP and the section. Formatting track change error to be sure. The section is now titled, "4.4.1 Progress Towards Meeting Objective 4 in 2014 - Investigate Entrapment or Stranding of Bull Trout during Periods of Low Reservoir"

10. Yes, the FWS would like to have these samples analyzed.

    a. Sounds good. But since we didn't analyze them in 2014 I will leave the section unchanged. I'll work with Judy, you and Pat Dehann at Abernathy to analyze these data. One follow question to answer is what question are we answering through the analysis of these samples. We are happy to fund the analysis, but I am curious to know if the analysis will be question or hypotheses driven rather than analyzing for the sake of analyzing. I am sure we can cover this in 2015 during BT conversations with the service. I have left the section unchanged.

11. Again, not sure which office you want here?

a. Clarified by adding, "Central Washington Field Office", consistent with comment number 1. Thanks for pointing this out.

From: Lewis, Stephen [mailto:stephen_lewis@fws.gov]
Sent: Wednesday, April 08, 2015 2:30 PM
To: Andrew Gingerich
Subject: Wells 2014 Bull Trout Management Plan Annual Report (USFWS Comments)

Hi Andrew-

Per our ASWG conference call this morning, attached are my comments for your consideration. No real red flags are present, but these eleven comments throughout the document hope to clarify certain issues and hopefully provide a higher level of clarity so FERC clearly understands the entire scope of activities centered around bull trout.

Thanks for your patience and my apologies for the delay of sorts

S-

PS: I'll be in and out of my office in the back storage room searching for documents related to this bull trout FOIA, so feel free to leave me a message if you need to chat.

--

****

Stephen T. Lewis

Hydropower and Energy Coordinator

US FISH AND WILDLIFE SERVICE

CENTRAL WASHINGTON FIELD OFFICE

215 MELODY LANE STE 103

WENATCHEE, WA 98801-8122

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email: Stephen_Lewis@fws.gov

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